

TfL Management System

Equality Impact Assessment (EqIA) form London Borough shared version

Project	London rental trial of e-scooters	
Accountable	Job Title: Director Transport Innovation	Name: XX
	Signature:	Date: 12-2-21
	Job Title: Senior Insights and Delivery Manager	Name: XX
	Signature:	Date: 12-2-21
Produced by	Job Title: Future Mobility Programme Manager	Name: XX
	Signature:	Date: 8-2-21
Reviewed by	Job Title: Members of TfL's Independent Disability Advisory Group (IDAG)	Name: XX
	Signature:	Date: 1-10-20
	Job Title: Senior Policy Manager	Name: XX
	Signature:	Date: 4-2-21
	Job Title: Senior Associate Lawyer	Name: XX
	Signature:	Date: 5-2-21
	Job Title: Diversity and Inclusion Specialist	Name: XX
	Signature:	Date: 8-2-21
	Job Title: Diversity and Inclusion Lead	Name: XX
	Signature:	Date: 9-2-21
	Job Title: Transport Innovation Policy Manager	Name: XX
	Signature:	Date: 9-2-21
	Job Title: Transport Innovation Policy Manager	Name: XX
	Signature:	Date: 9-2-21
Job Title: Head of Public and Regulatory Law	Name: XX	
Signature:	Date: 12-2-21	

Document History	Version	Date	Summary of changes
	0.1	08/07/2020	First draft
	0.2	11/09/2020	Second draft based on development of plans, evidence and feedback from Diversity & Inclusion (D&I) team
	0.3	25/9/2020	Third draft based on development of plans, evidence and feedback from D&I team
	0.4	12/10/2020	Fourth review based on development of plans, evidence and feedback from IDAG
	0.5	2/11/2020	Fifth review based on feedback from D&I team senior management
	0.6	20/11/2020	Sixth review based on procurement going live and additional evidence
	0.7	26/11/2020	Seventh review based on feedback from the core project team and input of additional evidence
	0.8	25/01/2021	Eighth review based on feedback from Legal
	0.9	01/02/2021	Ninth review based on feedback from Legal and additional evidence
	0.10	08/02/2021	Tenth review from an EQIA superuser, additional mitigations added based on the data and monitoring plan in place for the e-scooter rental trial and Legal

Project Related Documents	Doc No.	Document title	Relevant Section(s) of this Document
	1	Department for Transport: Legalising rental e-scooter trials Department for Transport: guidance for local areas and rental operators Department for Transport guidance for users	Department for Transport (DfT) documents are referred to in Section 1

Summary Table

With any new vehicle type there are safety risks to be considered. It is for the purpose of putting safety first that Transport for London (TfL), in collaboration with London Councils and the London Boroughs are taking a co-ordinated approach to a rental e scooter trial. This way, TfL are able to set the safety standards and the wider accessibility and environmental standards from the start that are important to TfL and the Mayor. A comprehensive monitoring, data collection and evaluation programme will help TfL to build a more detailed and evidence backed understanding of the wider negative as well as positive impacts of e-scooters for London and Londoners. This will inform TfL's longer-term position on this new vehicle type, as well as informing national legislation via the Department for Transport (DfT). Safety is the reason for doing the trial and will remain TfL's priority throughout.

To aid the reader, the following table has been created to provide a succinct summary of the negative impact areas arising from the introduction of a 12-month rental e-scooter trial and the mitigation themes that are in place. The list below is not exhaustive and purposely high level, but the detailed assessment can be found in Section 3.

Key Impact Area	Key Mitigation Areas	Protected Characteristic Affected
<p>Increased risk of collision/falls whilst riding a rental e-scooter and subsequent higher level of injury</p>	<ul style="list-style-type: none"> • The co-ordinated pan London trial with higher safety standards • Enhanced vehicle safety features e.g. lighting • Operator safety processes e.g. confirming training understood • Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe use • No-go and Go-slow areas can be introduced • Existing TfL road safety campaigns • Operator maintenance programmes for rental e-scooters • Community outreach delivered by operators and boroughs • Monitoring, data collection and evaluation programme 	<p>Older Pregnant women, Men BAME communities Young</p>
<p>Increased risk of collision with a rental e-scooter and subsequent level of injury to pedestrians due to illegal or poor rider use such as e scooters being discarded poorly and becoming street litter, e scooters not being seen or heard, the speed of the vehicle as well as their use in shared use areas</p>	<ul style="list-style-type: none"> • The co-ordinated pan London trial with higher safety standards • Enhanced vehicle safety features e.g. lighting, horns etc • Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use • Operator safety processes e.g. confirming training understood • Parking provision to be specified and made available via the London Boroughs for rental e-scooters • No-go and Go-slow areas can be introduced • Programmes to remove poorly left rental e-scooters 	<p>Disability Older Pregnant women/maternity/paternity</p>

	<ul style="list-style-type: none"> • Notifications to alert of discarded rental e-scooters • Operator contact details to be clear and accessible • Community outreach delivered by operators and boroughs • Police enforcement programmes • Monitoring, data collection and evaluation programme 	
Increase in fear of going out and experiencing a collision with a rental e-scooter	<ul style="list-style-type: none"> • The co-ordinated pan London trial with higher safety standards • Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use • Community outreach delivered by operators and boroughs • Enhanced vehicle safety features e.g. lighting, horns etc • No-go and Go-slow areas can be introduced • Number of rental e-scooters available can be amended • Monitoring, data collection and evaluation programme 	Older Disability Pregnant women/maternity/paternity
Increase in fear and risk of hate crime if pick up and drop off locations for rental e-scooters leave individuals feeling more at risk	<ul style="list-style-type: none"> • The co-ordinated pan London trial with higher safety standards • Borough parking guidance • Monitoring, data collection and evaluation programme 	Young Women BAME communities Faith groups Sexual orientation
Increase in transmission of COVID-19 to riders from rental e-scooters	<ul style="list-style-type: none"> • The co-ordinated pan London trial with higher safety standards • Operator maintenance programmes for rental e-scooters e.g. infection control procedures • Existing Covid-19 marketing and awareness raising messages • Education, training and marketing programmes delivered by operators, TfL, boroughs etc focusing on safe, legal and considerate use • Monitoring, data collection and evaluation programme 	Older Men Pregnant women BAME communities
Exclusion from the trial due to sex, affordability, lack of a smartphone, language barriers or bank account	<ul style="list-style-type: none"> • The co-ordinated pan London trial with standards important to TfL and the Mayor • Low income plans • Operator education and outreach for users and non-users must have maximum reach, including for those whose first language isn't English, who wouldn't interact with digital channels and all information should be accessible • Operators should consider alternatives to smartphones • Monitoring, data collection and evaluation programme including feedback from users and non-users 	Older Pregnant women/maternity/paternity Women Disability BAME communities Sexual orientation Other (homeless, refugees, low income)

Section 1: Clarifying Aims

1.1 Background to rental e-scooter trials

Prior to July 2020, e-scooters were illegal for use on all public highways in the UK and could only be ridden legally on private land with the landowner's consent.

In early May 2020, the DfT announced its intention to bring forward 12-month trials of rental e-scooters and to roll the option out to any interested local area, as part of the government's response to the coronavirus pandemic. Following consultation, new regulations to allow trials came into force on 4 July 2020. These trials are only permitted in approved local authority areas with explicit authorisation under a vehicle order by the DfT (which will allow e-scooters to be used legally for trial purposes only).

TfL's engagement with London Boroughs and with e-scooter operators demonstrated early on that there was strong interest in hosting trials and as such, it was likely that some form of rental e-scooter trial(s) would happen in London, even without TfL involvement. If this were the case, there would be a patchwork of trials of varying operators with no consistency applied which could have potentially significant impacts on safety for London. For trials in major cities, DfT published guidance stating that where trial areas were to involve several tiers of local government, their preferred approach was for a lead authority to be agreed. In most cases it was expected that the lead authority would have strategic oversight across all local trial areas. It is proposed that this approach will be adopted in London by TfL, London Councils, and the London Boroughs; a co-ordinated single rental e-scooter trial across London, promoting safety at its core and achieving a consistent approach with participating London Boroughs for the benefit of London.

Given their newness, there is little robust data on the impacts of e-scooters – especially in the UK and so the DfT has legalised trials of rental e-scooters for the purpose of informing the future position on e-scooters. Whether any further consultation on the national legalisation of e-scooter is deemed necessary would be a matter for the DfT. Private use of e-scooters in any public place remains illegal and will be managed by the Police (Police is a term used throughout this document to reflect the activities of the Metropolitan Police Service (MPS), the City of London Police and the British Transport Police as well as any aid officers from other forces). The MPS have stated that they will continue to undertake enforcement activity to deal with illegal e-scooters being used in a dangerous manner.

1.2 Government e-scooter standards and associated user requirements

In September 2020, the Government last updated their “[E-scooter trials: guidance for local areas and rental operators](#)”. This guidance sets the minimum vehicle standards and associated user requirements for rental e-scooter trials, such as the need for a provisional or full driver’s licence, insurance (provided by the operator) and compliance with all relevant road law such as that relating to drink driving and use of smart-phones.

1.3 London co-ordinated approach:

TfL, London Councils and participating London Boroughs are preparing for a co-ordinated, single rental e-scooter trial across a geographically limited trial area promoting safety and consistent standards at its core.

TfL expects the trial to last for 12-months. The trial term may at the discretion of TfL, London Councils and the London Boroughs, be extended for a further six months subject to DfT approval. This will be under the terms of the agreement of which participating London Boroughs can call off a contract with up to three operators selected by TfL following an open and transparent selection process (with support from London Councils) (the "administration agreement"). Any decision to extend at the end of the 12-month period would consider the success of the trial to date and an ongoing review of equalities impacts. The London Boroughs and the extent of the TLRN covered by the trial area may change as London Boroughs join or leave the trial.

Safety is the top priority of TfL, London Councils and participating London Boroughs and ultimately this trial will help each organisation to understand if and how these e-scooters can be safely accommodated in London or not. Operators taking part in the selection process will be assessed on their ability to meet strict safety requirements and high operating standards, putting safety first and ensuring that the trial is responsibly managed for the benefit of everybody in London.

Most recent update, March 2021: A procurement process to select up to three operators for a London rental e-scooter trial is underway. The process was open to all companies who want to take part and the trial is likely to launch in spring 2021.

1.4 London rental e-scooter trial: Objectives

The key objectives of TfL taking a coordinated approach to the trial are to:

- Promote safety at the trial’s core and help to ensure operators meet strict minimum standards relating to vehicle design, vehicle maintenance, parking, customer education and training;
- Achieve a consistent approach across London (improving upon the experience of dockless bikes, which created a patchwork of different approaches), including in relation to street clutter, access across different socio-economic groups and enforcement issues;

- Provide the data to understand how e-scooters might impact the achievement of the Mayor's Transport Strategy (MTS), as well as helping to inform the DfT's consideration of whether to provide a statutory basis for e-scooters to be used in England, Scotland and Wales, following the trials;
- Provide the Mayor with the platform and evidence to request any city-wide powers that might be needed in the longer term to manage e-scooter use; and
- Provide a potentially green and sustainable alternative to private car and capacity restrained public transport (including on Transport for London's Road Network (TLRN)) to support coronavirus pandemic restart and recovery work.

Along with these wider project objectives, TfL have prepared data and evidence gathering around six detailed learning objectives:

- To explore and understand the appropriate e-scooter operating standards, safety standards, environmental standards, regulations and city-level management powers required to ensure they benefit e-scooter users as well as [society] as a whole, and feed this insight gleaned through data collection into the DfT ahead of any changes to relevant legislation;
- To understand the impact of e-scooters on air quality and demand for travel by car, walking, cycling and public transport as well as where e-scooters can enhance transport options and complement existing public transport;
- To establish the changes in infrastructure required (if any) for rental e-scooter schemes to deliver a safe and attractive environment on our streets;
- To understand user and non-user reaction to e-scooters, their attitudes and perceptions;
- To understand the commercial viability of rental e-scooters in London, determine any areas of market failure including inequality in access and to understand the total cost of impacts for London Boroughs and TfL; and
- To understand how e-scooters might support ongoing restart and recovery objectives by providing a relatively green alternative to both private car and capacity restricted public transport, as part of London's wider re-opening following the coronavirus pandemic.

1.5 London rental e-scooter trial: Core details

The Operator Specification (**See Appendix 1**) sets out all of the requirements of operators, however, as of 15 February 2021, the core details of a trial would include:

- **Number of Operators**
 - A procurement process will select up to three operators.
- **Duration of Trial**
 - The trial is expected to last for 12 months.
- **Trial Area**

- The participation of each London Borough is flexible and can be changed and as such the initial trial area is yet to be confirmed, however, a map of the current “day 1” boroughs (**see Appendix 2**) has been provided to give the current picture.
- Some London Boroughs may only allow rental e-scooters initially to be ridden on their streets and not parked. Other London Boroughs may choose to join the trial later.
- **Number of e-scooters**
 - The number of rental e-scooters allowed by an operator will fluctuate throughout the trial. On day one of the trial, each operator’s permitted fleet size for the trial area as a whole shall be 50 rental e-scooters multiplied by the number of full-service Boroughs.
 - An operator’s permitted fleet size after 28 days (the first period) shall then be determined by the permitted fleet size review process led by TfL, London Councils and participating Boroughs. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. Current and future parking capacity, in addition to the number of Boroughs participating in the trial, will also be considered. Fleets can be raised, lowered or maintained based upon this process and the Operator Specification (**see Appendix 1**) provides full details in Section 9 and 10 on how this process will work.
- **Features of e-scooters**
 - To be used by one person only
 - Operators will need to meet the DfT’s minimum vehicle standards along with additional requirements in London.
 - The exact features of the rental e-scooters deployed as part of this trial will be dependent on which operators are selected following the procurement process
- **Parking**
 - Participating London Boroughs will determine where operators can and cannot park rental e-scooters.
 - TfL does not expect to provide rental e-scooter parking on the TLRN but is planning for some parking to be provided where it is safe to do so on TfL land outside and close to a limited number of TfL stations and possibly other TfL land, but this is under consideration.
- **Speed**
 - Rental e-scooters will be limited to a maximum speed of 15.5miles per hour (mph).
 - Participating London Boroughs and TfL can also designate ‘no go’ and ‘go slow’ areas if they wish to prevent or reduce the speed of rental e-scooters in certain areas. Motor output will be removed completely in no-go zones, with speeds capped at eight mph in go-slow zones. This is possible due to the vehicles being electrically powered and GPS-connected which means that they will know where they can and cannot go and in no-go zones, they will become un-rideable. TfL is initially co-ordinating the approach to selecting these areas although it is the intention to start the trial with only essentially restricted areas so usage can inform future restrictions. It will be possible to adjust these zones at any point throughout the trial.

1.6 Who will be impacted: Staff or Customers

Although a trial of rental e-scooters presents a new mode of transport for TfL staff to adjust to and prepare for, it is not expected to have any unique impact on staff compared to other modes they have had to roll out before. Instead, the impact of a 12-month rental e-scooter trial will be more acutely felt by TfL customers.

Preparations for a trial started in June 2020, and it has been since this date that TfL began to actively identify the ways in which a trial of rental e-scooters could impact on TfL customers and Londoners both positively and negatively. This EQIA aims to enable TfL to design a trial that reflects and takes into account the impacts of the proposal, including the impact on individuals with protected characteristics, and put in place mitigating actions to support.

E-scooters remain a relatively new mode of transport and in many places robust evidence is lacking about their impacts. Although some people have experiences of e-scooters, either directly or in-directly, this has been up until now generally via their illegal use in sporadic form. It is acknowledged that there is still much to learn about these vehicles, and that even some with protected characteristics are likely to consider using them more as the trial begins and will subsequently develop their own views based on further experience. Our engagement programme will remain live to listen and incorporate new impacts as TfL learns about them directly or via our stakeholders.

One of the fundamental reasons why TfL is co-ordinating a trial of rental e-scooters is so that should the future position of these vehicles change (under national legislation), TfL, London Councils and London Boroughs will have the evidence and experience of many to inform their direction and manage any further use.

Section 2 that follows summarises the evidence that has been collected to inform this assessment, followed by Section 3 which outlines the impacts by group and the associated mitigations (for negative impacts only).

Section 2: The Evidence Base

TfL has undertaken a programme of research and engagement to accurately understand the views and concerns of our stakeholders and importantly the possible impacts of the introduction of the rental e-scooter trial on people with protected characteristics. Evidence has been gathered via consultation responses to the DfT in early 2020, published reports or articles in the public domain including those written by groups representing people with protected characteristics like the Royal National Institute of Blind People (RNIB) and those written about the experiences of other cities and information provided at multiple meetings with stakeholders and representative bodies. In July 2020, TfL also issued a questionnaire to 140 key stakeholders to gain their direct views on e-scooters which received 48 responses. Although this section does not call out each response in turn, all

have been incredibly valuable in building this evidence base and developing TfL's knowledge on the issues associated with the introduction of rental e-scooters. TfL thank all those that have engaged with us to date and for their continued engagement to come.

The purpose of this section is to display the evidence that has been gathered. The evidence is presented by impact area starting with neutral, then positive and the negative impact evidence.

2.1 London population data

The following data has been collected from the London Datastore¹

Age: The age demographic in London is as follows:

- 0-15: 20%
- 16-24: 11%
- 25-34: 19%
- 35-49: 23%
- 50-64: 16%
- 65+: 11%

Disability: 19% of the London population are disabled (81% non-disabled)

Gender: There are an equal percentage of males (50%) and females (50%) in London

Ethnicity: The London population is majority white (57%) compared to BAME (43%)

Religion: The religion demographic in London is as follows:

Christian: 48%	None: 26%	Muslim: 14%	Hindu: 5%
Jewish: 2%	Sikh: 2%	Other: 2%	Buddhist: 1%

Sexual orientation: The sexual orientation demographic in London is as follows:

Heterosexual: 90%	Don't know/refuse: 6%	Gay or lesbian: 2%
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¹ Greater London Authority, 2019. London's diverse population Available from: <https://data.london.gov.uk/dataset/london-s-diverse-population>

Bisexual: 1%

Other: 1%

2.2 Potential positive impacts - evidence

The approach TfL is taking is positive for London as opposed to the alternative which would involve multiple fragmented schemes:

Principally, the approach TfL are adopting will allow a co-ordinated single rental e-scooter trial across London which promotes safety and accessibility at its core and a consistent approach with participating boroughs. If TfL chose not to be involved there would be a fragmented approach to rental e-scooter trials in London with no consistency which could have led to numerous safety issues. Multiple stakeholder groups including TfL's Independent Disability Advisory Group (IDAG), Trust for London and Rolltech.uk have positively supported the approach TfL proposes to take towards a rental e-scooter trial in London which is to work together with London Councils and the participating London Boroughs, to drive a high safety standard to ensure that selected operators have in place the best available mitigations, such as those listed in Section 3. They have noted the difference that this co-ordinated and collaborative approach will make in terms of higher and consistent safety standards to the people they represent in comparison to alternative options (borough by borough approach). In February 2021, TfL hosted a workshop with seven members of staff who represented the views of pregnant women and those who are on maternity or have young children. Although they had concerns, this group echoed the support of the approach and highlighted that a trial will be useful in clarifying the future use of e-scooters including the rules they have to follow.

The trial could improve mobility for some:

The TfL Youth Panel told TfL that particularly for young Londoners (who tend to be lower income than other demographics), and those living centrally who may not own a car, rental e-scooters will increase opportunities through making travel easier within their local area and beyond. Further Wheels for Wellbeing told TfL that rental e-scooters, if adapted to suit people with different physical needs could provide some disabled people with greater opportunities for independent travel. London Cycling Campaign states² this is similar for older people, in the way TfL have seen e-bikes create an opportunity for those who would not usually be able to travel a long distance by foot or on cycle, e-scooters could provide an opportunity to improve independence for some older and disabled Londoners. Tommy's also felt that e-scooters could possibly aid pregnant women who are suffering from pelvic pain, however the extent to which e-scooters would be used in this way is likely to be very limited. A trial will provide the opportunity to investigate these further and better understand the positive impact e-scooters could have on independent mobility for people with protected characteristics in London.

A trial of rental e-scooters could provide a benefit to those living in areas that are poorly serviced by other public transport modes. TfL know³ that people of lower-economic backgrounds tend to live in poorer areas that have fewer transport links. Rental e-scooters available through a local authority scheme

² <https://www.london.gov.uk/about-us/londonassembly/meetings/documents/s82223/Appendix%20-%20-%20Micromobility%20and%20Active%20Travel%20in%20the%20UK.pdf>

³ <https://www.sustrans.org.uk/our-blog/policy-positions/all/all/our-position-on-micromobility/>

(such as the one being discussed) that are affordable would improve mobility, independence and journey times for those serviced less well by conventional modes. Trust for London further reiterated to TfL at the meeting on the 5 February, the benefit to communities of having a low-cost way to travel without requirement for storage and risk of theft of vehicles, which a rental scheme would achieve.

In 2020, TfL commissioned research into barriers to cycling for women. Such barriers included the lack of access to facilities following cycling, with a requirement to shower. Access to electrically supported vehicles such as a rental e-scooter scheme could remove this barrier and improve access to new modes.

The trial could improve access to conventional transport modes for groups that rely on them:

The RNIB, told TfL that if e-scooters can contribute to a reduction in crowding on public transport it could aid blind and partially sighted people who rely on these modes making their journeys less crowded.

A reduction in congestion on conventional modes of public transport would further benefit people with autism, learning disabilities and those with mental health conditions such as anxiety, who have told TfL⁴ that congestion remains a barrier to accessing public transport. As London enters the recovery phase from COVID-19 restrictions, the availability of rental e-scooters could alleviate space on conventional modes for those who need it more critically. This would further benefit wheelchair users and parents with young children and buggies.

The trial could aid the reduction of pollution supporting those most at risk of its impacts:

Via the workshop with pregnant women and those who are on maternity or have young children, TfL heard the concerns of parents and pregnant women of the impact of air pollution on their unborn babies or young children. A report from the World Health Organisation on air pollution and child health highlighted that air pollution is a major environmental health threat and children are the most vulnerable to it⁵. The report also highlights that pregnant women that are exposed to polluted air are more likely to give birth prematurely, and have small, low birth weight children.

The report also highlighted that children who have been exposed to high levels of air pollution may be at greater risk for chronic diseases such as cardiovascular disease later in life. Those in the workshops felt re-assured and positive about the introduction of a more sustainable mode of transport to London and how this could contribute to the safety and health of their families and even more so if trips normally taken by car were swapped for rental e-scooters.

Another participant in the workshop also raised how the introduction of a new sustainable mode of transport could be a positive influence on her young children, setting a good example of how transport must evolve for the benefit of the environment. CoMoUK further highlighted that it will introduce another sustainable transport option for Londoners and that a trial will provide the opportunity for learning to inform future direction.

⁴ <http://content.tfl.gov.uk/travel-in-london-understanding-our-diverse-communities-2019.pdf>

⁵ <https://unfccc.int/news/polluted-air-affects-more-than-90-of-children>

TfL also know⁶ that in London air pollution is concentrated in areas near very busy roads, meaning people living in the most deprived areas of the city are exposed to a quarter more NO₂ pollution than those living in the wealthiest areas. As the negative health impacts of air pollution are felt more acutely by older people, children and those with heart and respiratory conditions, improvements in air quality and schemes that lead to a fall in air pollution could more acutely benefit these groups.

The trial could provide a preferable option for independent travel for Londoners that may have been victims of hate crime on the transport network:

On 5 February TfL's youth panel told TfL that a 'solo' mode of transport that removed fear of large crowds, intimidation or hate crime could be of benefit to people with protected characteristics, such as the young, who may have been victims of hate crime on the transport network.

Based on TfL held data on hate crime, in 2019, there were over 2,700 reports of hate crime on TfL's network, with most of these incidents occurring on the bus network (1,318), followed by London Underground (1,092). From January to September this year, there have been over 1,500 reports of hate crime on the network. Again, most of these reports were from buses and London Underground – 876 and 491 respectively. In both years, a large proportion of the reports (over 70%) have been in relation to race hate crime. TfL know that hate crime is largely under-reported on the transport network, and that a lack of perceived support for victims of hate crime is a large barrier to reporting, so the impact of hate crime could be far higher than these figures here.

Providing an additional option for a sustainable mode of travel that does not involve returning to busy transport modes, could be particularly beneficial to Londoners who have been victims to or witnessed hate crime on the public transport network, by ensuring they maintain their independence.

Tell Mama, an organisation that supports victims of hate crime against Muslims, told TfL that a fear of returning to public transport following an incident will cause victims to then use unaffordable modes such as private taxis. This can in turn make maintaining part-time and low paid work uneconomical and victims have therefore had to give up work. A 'solo' affordable mode of travel could prevent this negative effect of hate crime on the public transport network.

2.3 Potential negative impacts – evidence

Via our programme of research and engagement, the most significant areas of concern raised to us by those with protected characteristics tends to be in the area of safety; affecting older people, disabled people and pregnant women most significantly. These impact areas, along with others are presented below with the evidence TfL have gained and Section 3 explores who they are most applicable to.

⁶ <https://www.trustforlondon.org.uk/publications/fair-access-towards-transport-system-everyone/>

Risk of falls and subsequent level of injury to riders from rental e-scooters due to vehicle design:

The safety of e-scooters is a growing issue globally, and as a new vehicle type, they do present concerns as TfL strives to deliver Vision Zero in London. In 2019 alone, there were 11 e-scooter fatalities in France⁷ and over 1000 people were hospitalised in Austria⁸. Via the Police, TfL has access to statistics on e-scooter incidents from 2019 which show that there was one fatality, 11 serious injuries and 21 slight injuries to e-scooter riders. TfL do not hold or have access to any details of the demographics of those that have been injured other than for the one fatality.

Emily Hartridge lost her life in 2019 as a result of a collision with a lorry in London when she was riding her e-scooter. The senior coroner, Dr Wilcox wrote “Ms Hartridge was riding an electric scooter on Queenstown Road when she lost control after passing over an inspector hatch in the cycle lane and was thrown under the path of an HGV”. She added that, “the scooter was being unsuitably driven, too fast and with an underinflated tyre and this caused the loss of control and her death”.

The tyres of e-scooters have often been raised by groups as a concern, with many saying they are too small to deal with un-even road surfaces. Currently there is no industry standard for the size of e-scooter wheels, and much is to be learnt about this key feature of an e-scooter. However, the Parliamentary Advisory Council for Transport Safety (PACTS) has described e-scooters as having features which are “inherently unsafe⁹”. The report also highlighted that the small wheels of e-scooters are incapable of safely negotiating the ruts, potholes and uneven surfaces of many urban streets. Estimating the safety risk presented by new modes is difficult and comparing modes against each other even more so. In the USA for instance, the e-scooter injury rate appears to be coalescing at around 2.2-2.5 injuries per 10,000 trips, which would mean the typical e-scooter rider requires hospital/urgent care treatment every 3.1 years¹⁰¹¹. To put this figure in context, in London the number of people killed or seriously injured while cycling was 2.7 per million journey stages travelled¹² (i.e. 0.027 injuries per 10,000 journey stages, or roughly 100 times fewer injuries than expected in the e-scooter studies). This means cycling in London would be considerably less risky than e-scooter if these figures were to be replicated here, however as outlined comparisons between cities/countries are incredibly difficult.

The two major safety considerations regarding riders and e-scooters are as below:

⁷ <http://www.francesoir.fr/societe-transport/onze-morts-en-trottinette-en-2019-en-france>

⁸ <https://noe.orf.at/stories/3029137/>

⁹ <https://www.fleeteurope.com/en/maas/europe/features/e-scooters-are-unsafe-says-influential-safety-organisation?a=JMA06&t%5B0%5D=e-scooter&t%5B1%5D=Safety&t%5B2%5D=ITF&t%5B3%5D=Bird&t%5B4%5D=Lime&curl=1#:~:text=The%20small%20wheels%20of%20e,surfaces%20of%20many%20urban%20streets.&text=The%20standing%20position%20of%20an,more%20force%20than%20a%20cyclist.>

¹⁰ <https://www.portlandoregon.gov/transportation/article/709715>

¹¹ https://www.austintexas.gov/sites/default/files/files/Health/Epidemiology/APH_Dockless_Electric_Scooter_Study_5-2-19.pdf

¹² <http://content.tfl.gov.uk/travel-in-london-report-12.pdf>

1. Head and neck (and subsequently serious) injuries are common and occur more frequently than for cycling

- a. Much attention has been paid to a recent ITF report¹³, which according to media headlines showed that “e-scooters are no less safe than cycling.” Such headlines appear to be misleading. While the fatality risk may or may not be like that of cycles, the study stated that the risk of a serious, life changing injury requiring hospital treatment may indeed be higher for e-scooters.
- b. This heightened chance of a serious injury may be in part due to the fact that head injuries are more common, a trend observed across a wide variety of studies and contexts. In the US, the rate of head injuries was found to be more than double the rate for cyclists¹⁴, with similar figures observed in New Zealand (7.5 per cent vs 3.7 per cent for bicycles)¹⁵. PACTS also felt that the standing position of an e-scooter is unstable, putting the rider in danger of being thrown forward more quickly and with more force than a cyclist which leads to much higher rates of head injury- eight times higher than a cyclist according to the Danish Transport Authority. Further, there is belief that head injuries are more common as a result of riders being further from the ground when they fall due to an incident.

2. Injuries are primarily as a result of riders falling off

- a. Irrespective of geography, most injuries are as a result of riders falling off, with studies consistently putting this figure at around 80-85 per cent of injuries recorded^{16,17,18,19}.

TfL have also considered casualty numbers more broadly in London using the recently published “Road Danger Reduction Dashboard²⁰”. This shows that during 2019 men (63.2 per cent) are more likely to be a casualty in a collision in London than women (34.5 per cent) across all modes of travel. TfL reviewed this in closer detail and looked at the difference between men and women by mode of transport. All are fairly equal in their split between men and women such as pedestrian casualties, however, men are far more likely to be a casualty in a collision involving powered two wheelers (where out of a total of 5,391 casualties, men were 5,017 of those) and a pedal bike (where out of a total of 4,634 casualties, men were 3,441 of those). TfL do know though that cycling and the use of powered two wheelers are greatly more popular with men.

¹³ <https://www.itf-oecd.org/safe-Micromobility>

¹⁴ https://jamanetwork.com/journals/jamasurgery/article-abstract/2758159?guestAccessKey=cd562764-e2da-4c2e-b3af-80654ee5ab06&utm_source=For_The_Media&utm_medium=referral&utm_campaign=ftm_links&utm_content=tf&utm_term=010820

¹⁵ NZ Transport Agency: Project updates for AMIG, 2020

¹⁶ <https://www.portlandoregon.gov/transportation/article/709715>

¹⁷ <https://bmjopen.bmj.com/content/9/12/e033988>

¹⁸ <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2722574?guestAccessKey=c8d43986-1131-4af7-b3bc-a9f9415cd3b3>

¹⁹ Kim, Y. W., Park, W. B., Cho, J. S., Hyun, S. Y., & Lee, G. (2018). The new recreational transportation on the street: Personal mobility, is it safe? Journal of Trauma and Injury, 31, 125-134

²⁰ <https://app.powerbi.com/view?r=eyJrIjoiYTlkYmE1ZGQ0NGlyZi00N2YyLWUyMTYtMjYzNzA5YTVkOWEzliwidCI6IjFmYmQ2NWJmLTVkZWYtNGVIYS1hNjkyLWUwODJiMjU1MzQ2YiIsImMiOiJh9>

TfL have also considered the age of e-scooter riders. Although there is no robust evidence in the UK, a Science Direct report²¹ focussing on data from Denver and Portland does tend to suggest that the age of users is younger. 69 per cent of respondents to Portland's user survey aged 20–39 and nearly half of survey respondents who had ridden e-scooters in Denver were aged 25–39. Although evidence in the UK is lacking at the moment about the demographics of users of e-scooters, Rolltech.uk informed TfL that they felt young black individuals represented the early adopters, but TfL is unsure what evidence this is based upon. This is something TfL will seek to learn more about as the trial starts through the robust monitoring plans as detailed in the Operator Specification (**See Appendix 1**) in Section 14.

Although the risk of a fall and subsequent injury from an e-scooter is present for all riders, the level of injury will be disproportionately high for certain groups with protected characteristics, most notably older people and pregnant women. Tommy's told TfL that e-scooters would need to be used with care by pregnant women as their centre of balance changes as their pregnancy develops and risks of falls would increase. Further, if a pregnant woman falls, particularly on her bump this could be very dangerous; or if a fall leads to injuries to wrists/ankles then they could be more at risk of injury due to softened ligaments in pregnancy. This evidence applies to all injury categories below. Older people are also more likely to suffer from more significant injuries due to the well-known fact that bone density reduces with age which could lead to more severe breaking of bones as well as the degree of fragility increasing with age meaning they could be more likely to succumb to injury or a more serious injury that could have longer term impacts or even death.

Risk and level of injury to pedestrians due to illegal or poor rider use including rental e-scooters becoming street litter through poor parking:

Nearly all consulted stakeholders as well as written reports have emphasised the risk of injury to other road users as a result of illegal or poor rider use including, e-scooters being incorrectly parked, becoming street litter as well as the consequences of high-risk behaviours. Various stakeholders have also raised concerns about an increase in the illegal private use of e-scooters by people who believe that the prevalence of e-scooters equates to them being legal.

IDAG and the TfL Accessibility Forum both raised concerns over there needing to be safe and suitable areas for parking, namely areas that don't impact on other road users or cause obstruction. This was also raised in many of the survey responses TfL had. Considering this further, this concern may be shared by a wider group of Londoners who are less mobile, including those pushing prams or who are pregnant. Such individuals could suffer disproportionality as a result of a trip or fall from e-scooters if they've become trip hazards or being used in prohibited areas e.g. footways. For the avoidance of doubt, it is illegal to ride e-scooters on the footways. The TfL Youth Panel informed this discussion further as they stated their concerns about e-scooters being parked in positions that are either unsafe or block pathways. Although they didn't stipulate the exact consequence for younger people, it could be assumed that e-scooters that are left in unsafe locations could be trip hazards for smaller children who don't have as much road awareness. Although the TfL Youth Panel felt that it was not enough of a reason not to trial these vehicles, TfL are also aware of research that tells TfL that road injury rates are disproportionately high for some Black, Asian and Minority Ethnic (BAME) road user groups (Lawson and Edwards 1991;

²¹ <https://www.sciencedirect.com/science/article/pii/S0965856420306522>

Thomson and Tolmie 2001). The TfL Vision Zero Action Plan²² also highlights this with BAME Londoners being more at risk, with children in this group being on average 1.5 times as likely to be killed or seriously injured on the roads than non-BAME children. It could be assumed that this could lead to a BAME children being more likely to be involved in an incident with an e-scooter as a pedestrian than non-BAME children.

A BBC article²³ in 2019 highlighted disability activists' concerns with the dockless bike business model. Their concerns broadly include serious injury from tripping or long detours due to obstruction.

In further support of the above statements, concerns were raised in June 2020 by Andrew Hodgson, President of the National Federation of the Blind of the UK. He wrote a letter²⁴ outlining the many concerns they have on the proposed plans to introduce trials of rental e-scooters.

A study of injury rates from e-scooters showed that the proportion of non-riders injured by electric scooters, although smaller, was surprisingly large at 17 per cent in Copenhagen²⁵ and 8.4 per cent in California²⁶. The Copenhagen study also highlighted that the group of non-riders most injured from e-scooters were elderly people.

Lastly, some parents raised to TfL their concern of an e-scooter's height and how it may hit a pushchair or light-weight buggy and injure the child being carried. Although TfL have not found any evidence of this directly, Chris Uff, a neurosurgeon at the Royal London Hospital, said his team had treated four patients in 2019 with "fairly severe head injuries, either after coming off e-scooters or being hit by people on them²⁷".

The London "Road Danger Reduction Dashboard²⁸", shows in 2019 that the number of pedestrian casualties were equally split between men and women.

Risk of injury to pedestrians due to rental e-scooters making little to no sound or not being clearly seen:

Amongst many other stakeholders such as IDAG and the TfL Accessibility Forum, the RNIB have told TfL that silent vehicles such as e-scooters are extremely difficult for blind and partially sighted people to see or hear and that it may not always be obvious to someone riding an e-scooter that they are approaching a pedestrian with sight loss. The Urban Transport Group (UTG) has also highlighted concerns of e-scooters being largely silent and have

²² <http://content.tfl.gov.uk/vision-zero-action-plan.pdf>

²³ <https://www.bbc.co.uk/news/uk-49248554> Accessed on 25/9/20

²⁴ <https://www.nfbuk.org/campaign/e-scooters/>

²⁵ <https://bmjopen.bmj.com/content/9/12/e033988>

²⁶ <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2722574?guestAccessKey=c8d43986-1131-4af7-b3bc-a9f9415cd3b3>

²⁷ <https://www.theguardian.com/world/2020/feb/02/e-scooters-fears-public-safety-crisis-road-approval-uk>

²⁸ <https://app.powerbi.com/view?r=eyJrIjoieTYkYmE1ZGQ0NGlyZi00N2YyLWEyMTYtMiYzNzA5YTVkOWEzliwidCI6IjFmYmQ2NWJmLTVkZWYtNGVIYS1hNjkyLWEwODJiMiU1MzQ2YiIsImMiOj9>

said they could present dangers to pedestrians, particularly those who are less mobile or who may be slower to react. The RNIB also told TfL of the experiences of some individuals with one explaining that because of the lack of sound "...it could be the end of independent travel for me. It's hard enough without powered vehicles whizzing around on pavements". TfL has considered how this could affect others with protected characteristics such as older people, pregnant women or young people with little road awareness; the group affected is anticipated to be significant.

Risk of injury to pedestrians due to the speed of rental e-scooters:

The TfL Accessibility Forum, which represents multiple organisations, highlighted to TfL their concerns about the speed of e-scooters not being suitable for certain areas or that they're simply too fast. Furthermore, the National Federation of the Blind of the UK in their paper "No time to trial or legalise e-scooters²⁹" regularly cite speed as a contributory factor to many of the incidents seen in other cities involving e-scooters. TfL expects the speed of an e-scooter to disproportionately impact on older people with less mobility and those with a disability that limits movement or those that are visually impaired. If these people are in the path of an oncoming e-scooter in a shared use area they may struggle to move out of the way as quickly as others would and the injuries could be more significant for them too, especially older people.

A study from Austin Texas³⁰ is one of the most often highlighted when e-scooter speed is discussed as it states that "more than one-third (37%) of users reported that excessive scooter speed contributed to their injury."

Risk of injury to other road users as a result of rental e-scooters being used in shared use areas:

The Crown Estate raised their significant concern to TfL about the conflict between pedestrians and e-scooter users that could occur on the public highway. Further, the workshop TfL held with parents and those who are pregnant shared this concern and highlighted their worry of the use of e-scooters in shared use areas in London. In 2018 the RNIB³¹ responded publicly to concerns about shared use areas in Ealing. Such concerns included, blind and visually impaired people being unaware that they are walking on a footway where cycling is permitted, shock reactions, the inability to see or hear well enough to carry out communication with the other road user as well as an increasing need to walk excessively slowly and regularly stop, constantly strain to see or hear hazards which together become physically fatiguing. Such impacts could also apply to older people, especially those that have reduced mobility and possibly slower reactions.

Fear and anxiety of the introduction of rental e-scooters as a new mode of transport and impact on behaviour:

TfL's programme of research and engagement has also highlighted that it is not just the risk of an injury that causes concern to pedestrians, but it is also the perceived fear of interactions with e-scooters. The Guide Dogs for the Blind Association stated that they are already hearing from blind and partially

²⁹ <https://www.nfbuk.org/wp-content/uploads/2020/06/No-Time-To-Trial-or-Legalise-EScooter.docx>

³⁰ https://www.austintexas.gov/sites/default/files/files/Health/Epidemiology/APH_Dockless_Electric_Scooter_Study_5-2-19.pdf

³¹ <https://www.rnib.org.uk/campaigning/campaigning-news/rnibs-response-proposed-shared-use-pathways-london-borough-ealing>

sighted people who are anxious that a rental e-scooter trial will have an impact on their independent mobility if they're not managed appropriately. The RNIB provided further evidence of this concern as they told TfL that many people are scared about the introduction of e-scooters. Further, Age UK have said some older people are already anxious about walking on pavements, especially those that have had one or more falls and that the fear of being hit by an e-scooter will exacerbate this and have a potential impact on isolation and activity levels with some choosing to stay at home. The Swedish Association of the Visually Impaired told a radio show that many people are now afraid to go outdoors unaccompanied in areas where e-scooters had been deployed³². Similar concerns have also been raised in TfL's engagement with IDAG, TfL Accessibility Forum and in the TfL survey. TfL expects this fear to affect other groups with disabilities too such as those with brittle bone disease, those with impaired movement and possibly autism. It may also extend to pregnant women although the group TfL spoke to said at this time, they wouldn't alter their behaviours.

To consider this further this cause of anxiety could affect other groups such as pregnant women and older people who as a result of not feeling safe to complete their normal journey may choose alternative modes of transport such as the use of vehicles. This could prevent them from taking healthy exercise in order to mitigate their anxiety. A group of pregnant women and those on maternity also shared their concerns about already feeling "extra safety conscious" as a result of being pregnant or pushing a pram and being "more protective of themselves" and that the introduction of an e-scooter rental trial could exacerbate that feeling of stress and anxiety. However, they collectively felt that the introduction of the trial would not lead them to change their behaviours at this stage.

Spread of COVID-19 via rental e-scooters:

One very topical safety concern is that of the COVID-19 transmission and whether rental e-scooters could contribute negatively towards this due to having various users in any given day and that the disease is passed through touch. It is widely known that COVID-19 can be a far more serious illness to older people as well as men, pregnant women and the BAME community. At the end of 2020, a report³³ examining the COVID-19 deaths of people identified as having learning disabilities, found that the death rate was 4.1 times higher than the general population and because not all not all deaths of people with learning disabilities are registered on the databases they used, the real rate could have been as much as 6.3 times higher. The report explained that a learning disability is a significantly reduced ability to understand new or complex information and those with learning disabilities are likely to have had difficulty recognising symptoms of COVID-19 or following government advice to get tested and socially distance. When considering e-scooters, there will be a necessity for all users to prove understanding of how to use the vehicles at the beginning of each ride and it is therefore unlikely that those with learning difficulties, especially severe levels, would utilise this new mode of transport and therefore the risk of COVID-19 transmission from e-scooters shouldn't impact this group in the same way as others.

³² <https://sverigesradio.se/sida/artikel.aspx?programid=2054&artikel=7279972>

³³ <https://www.gov.uk/government/news/people-with-learning-disabilities-had-higher-death-rate-from-covid-19>

Fear of increase in harassment and hate crime due to using unsafe or unsuitable areas for starting or ending rental e-scooter journeys:

TfL learnt through the dockless bike experience in London the critical importance of structured and safe parking. In addition to ensuring e-scooters are parked in safe places e.g. not discarded on footways, it is also important to consider that chosen parking areas for them are considered safe and visible to others so that the user feels comfortable starting or completing a journey there. This is particularly important because of the prevalence of hate crime and harassment and unintentionally creating spaces where people feel more at risk of this occurring. Our engagement tells TfL that groups who experience this crime disproportionality are young people, women, BAME communities, LGBT+ as well as some faith groups. In 2018, 66 per cent of girls aged 14 to 21 told Plan International³⁴ that they had experienced unwanted sexual attention of harassment in a public place. An Independent news article³⁵ told TfL that one in three black, Asian or minority ethnic people have been racially abused since Brexit and a further study stated that recorded hate crimes rose by up to 100 per cent³⁶. Although hate crime already exists and the use of an e-scooter should not adversely contribute to this, it is important to ensure people feel safe where they are and that locations for collecting or leaving rental e-scooters are selected with care and thought.

Women feeling excluded from using rental e-scooters:

TfL knows from cycling statistics that representation from women is disproportionality low when it comes to cycling. In 2019/2020 the proportion of men and women who cycled at least once in the year was 62 per cent for men compared to 38 per cent for women. Although TfL does not know if this same trend applies to e-scooters yet, because the UK data doesn't exist due to the transport's infancy, other countries experiences suggest it does. A Bloomberg report³⁷, focussing on America, states that men are twice as likely as women to use micro-mobility devices like e-scooters and that safety could be a reason why. Additional data³⁸ from Denver and Portland indicate approximate gender splits of 70/30 and 64/34, respectively, between males and females. Combining this with casualty statistics, which are higher for men, could result in injury rates on e-scooters being higher for men.

Increase in stress and anxiety as a result of experiencing an incident involving a rental e-scooter:

The workshop with pregnant women and those on maternity raised an important concern of the increase in stress and anxiety that could occur as a result of experiencing an incident involving an e-scooter. This could be directly due to involvement in the incident or as a third-party witness to a collision or incident such as road-rage. They felt this could be particularly impactful on children and they were concerned as parents for how witnessing such events could impact them. Witnessing incidents on the road network and the impacts as a result are an existing risk to anyone using the road-space and are unlikely to grow in any substantial way as a result of e-scooters. However, as e-scooters are a relatively new form of transport and many do not have experience of interacting with them yet, there could be an initial rise in conflict as people adjust and learn how to safely interact with one another. An article from the Mental Health Foundation confirmed that people who experience post-traumatic stress disorder can feel anxious for years after the

³⁴ <https://plan-uk.org/act-for-girls/street-harassment>

³⁵ <https://www.independent.co.uk/news/uk/home-news/one-three-black-asian-minority-ethnic-bame-racism-abuse-assault-brexit-hate-crime-tuc-study-a7634231.html>

³⁶ <https://www.independent.co.uk/news/uk/home-news/brexit-vote-hate-crime-rise-100-cent-england-wales-police-figures-new-racism-eu-a7580516.html>

³⁷ <https://www.bloomberg.com/news/articles/2019-12-05/most-electric-scooter-riders-are-men-here-s-why>

³⁸ (Denver Public Works (DPW), 2018, Dill, 2019)

trauma, whether or not they were physically injured³⁹ Furthermore, an article about road-rage⁴⁰ told TfL that witnessing such an event can have a more profound impact on children especially if someone involved was a parent who is a role-model and it can be very frightening.

Rental e-scooter affordability:

The Race Equality Foundation told TfL that the cost of renting an e-scooter will be an issue for those from deprived communities and some black and minority ethnic (BME) groups who are amongst the poorest in the population. TfL also found that this may extend to other groups too, as the London Datastore⁴¹ told TfL that income is lower than average for BAME groups, women, younger people and those from the LGBT communities. Whilst the e-scooter rental charges to customers have not yet been determined, if the cost of hire were too high for these groups, they could be prevented from using the scheme and contribute to transport inequality.

The following findings are from the London Datastore:

- **Gender:** Females earn an average of 17.5% less than males in London
- **Ethnicity:** BAME individuals earn an average of 29% less than white individuals
- **Disability:** Those considered disabled earn an average of 15% less than those not considered disabled

The figure below published by Parliament using data from the Office for National Statistics (ONS)⁴² illustrates the median weekly pay age group.

³⁹ <https://www.mentalhealth.org.uk/publications/impact-traumatic-events-mental-health>

⁴⁰ <https://www.yahoo.com/lifestyle/road-rage-affects-kids-133116217.html>

⁴¹ <https://data.london.gov.uk/economic-fairness/labour-market/>

⁴² <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8456>



Figure 1: Median weekly pay by age

Income data based on sexual orientation and gender reassignment is less readily available, however a recent YouGov and LinkedIn survey⁴³ in 2019 identified Lesbian, Gay, Bisexual and Transgender (LGBT+) individuals earned an average of 16% less than others.

Risk of rental scheme being inaccessible due to lack of a smart phone, not speaking English or a provisional or full drivers' licence:

In order to utilise any rental e-scooter scheme in the UK, a provisional or full drivers' licence is required as set by the Government. Government figures⁴⁴ provide that only 52 per cent of black people have a driving licence (the lowest percentage of all ethnic groups). If this trend extends to provisional licences too it could result in a significant proportion of black people being unable to access a rental e-scooter scheme and contribute to transport inequality. It is important to note this evidence when understanding the full breadth of impacts, however this age stipulation (16 and in possession of a provisional licence) has already been determined by law and isn't therefore influenced by this policy.

According to the 2019⁴⁵ report on Travel in London: Understanding our Diverse Communities, evidence tells TfL that that disabled and older Londoners are less likely to access the internet or own a smartphone. Feedback we've received has emphasised this concern and how some potential users would be excluded from using the service if they do not have a smart phone.

According to a BBC article⁴⁶ in 2014 over 300 languages are spoken in London schools. As a result, where English is not a person's first or a spoken language they could be excluded from a scheme if alternative languages were not available.

⁴³ <https://www.linkedin.com/feed/news/the-uk-has-an-lgbtq-pay-gap-4702500>

⁴⁴ <https://www.ethnicity-facts-figures.service.gov.uk/culture-and-community/transport/driving-licences/latest>

⁴⁵ <http://content.tfl.gov.uk/travel-in-london-understanding-our-diverse-communities-2019.pdf>

⁴⁶ http://www.bbc.co.uk/languages/european_languages/definitions.shtml#:~:text=The%20largest%20number%20of%20community,%2C%20Cantonese%2C%20Mandarin%20and%20Hokkien.

2.4 Summary

E-scooters are a relatively new mode of transport that is in its infancy and therefore robust evidence is more limited compared to other modes. However, what is available has shown that although there are positives to this introduction for those with protected characteristics, there are significant impacts, genuine concerns and risks associated with their introduction for those sharing protected characteristics. Often with the introduction of a new policy there are equality related tensions and trade-offs, where for some, the new opportunities are positive and welcomed and for others more concerning. TfL is aware that this is equally true for the introduction of a rental e-scooter trial but fundamentally, the purpose of undertaking this trial in the co-ordinated way laid out is in the first place to reduce these impacts from occurring by raising the safety standards and the consistent way they're applied and to secondly, learn their extent of influence as evidence is gathered throughout.

As stated in Section 1, the core aims of this trial are to; promote safety at the trial's core, achieve a consistent and accessible approach across London (as opposed to a patchwork of approach at borough level if TfL weren't involved), provide the data to understand how e-scooters might impact the achievement of the MTS, provide the Mayor with the platform and evidence to request city-wide powers that could be needed in the longer term and to provide a potentially green and sustainable alternative to the private car. TfL wants to use this opportunity to gather data to understand how e-scooters can work in London and to gain further evidence of their impact on Londoners including those with protected characteristics. Critically, the trial provides the opportunity for TfL to build on this evidence and better understand the impacts of e-scooters. TfL welcome feedback from groups who feel any impacts have been over-looked or not considered fully.

Section 3: Impact and Mitigations

3.1 The short, medium and long-term negative impacts of the introduction of a 12-month rental e-scooter trial on people with protected characteristics

Principally, the approach TfL are adopting will allow a co-ordinated single rental e-scooter trial across London which promotes safety at its core and a consistent approach with participating boroughs. If TfL chose not to be involved in a rental e-scooter trial the alternative is for a fragmented approach to trials in London with no consistency which could have led to numerous safety issues. The coordinated approach to trialling a new potentially sustainable vehicle type in London is therefore the first and foremost mitigating action to potential safety issues. In this way, TfL, London Councils and the boroughs drive the safety standards as well as other standards important to the Mayor, TfL, London Councils and the London Boroughs. Critical to the trial is also research and data collection, to better understand safety and wider impacts of the trial for London and Londoners.

Please note, that the current mitigations do not take into consideration operator’s specific plans or vehicle features but are instead based upon the Operator Specification TfL has requested operators fulfil. The mitigations will evolve after the contract award (once the operators have been appointed) and their specific plans are known and throughout the trial should new opportunities present themselves. Where many of the mitigating actions are imbedded within the Operator Specification (**See Appendix 1**) they are referenced accordingly, and language has been purposely chosen to try and ensure it is clear when an operator is contractually required to do something.

Higher and consistent standards, introduced because of this co-ordinated approach, will in many cases work to mitigate against the risk of possible negative impacts occurring. The trial itself will inform this EqIA which will be reviewed on a regular basis to understand the scale and severity of any potential positive and negative impacts and to also understand how well mitigations are working. Ongoing monitoring and reviews will also look at whether additional mitigations are needed.

Protected Characteristic	Negative impacts based on evidence in Section 2	Mitigating action <i>(mitigating actions are presented as a summary and where more information can be found in the Operator Specification (Appendix 1) this is sign-posted via the relevant section of the document)</i>
Age	<p>1.1 Older people could suffer from more severe injuries due to falls from rental e-scooters as a rider and younger people could suffer from an increased rate of collisions due to increased use Falls and collisions from rental e-scooters are expected. Younger people may experience a higher rate of these due to their popularity with the vehicle and older riders are more likely to suffer from an even more significant injury if they fall from a rental e-scooter</p>	<p>Enhanced vehicle safety features: Operators will be required to meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence and be seen more easily. Operator’s e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process (See Section 16)</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services. This should help people of all ages become more familiar with an e-scooter and how to safely use it leading to safer road behaviours. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See O and 23)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users on how to ride e-scooters safely and considerately, with training mandatory for first time riders before they can start a ride. This information must be made available in a format that maximises understanding, including for those whose first language may not be English. This should help all riders</p>

		<p>understand how to safely ride their e-scooter and lead to safer road behaviours. (See Section 20)</p> <p>Required safety processes: Operators must also have various safety processes in place for users including one for first time users confirming they have understood the training information in advance of starting a ride and that promote the use of helmets. This should work towards ensuring riders of all ages are prepared before starting their journey safely. (See Section 20)</p> <p>Additional safety processes: Operators should consider additional safety processes and features such as encouraging riders to wear light-coloured or fluorescent clothing. This should help other vehicles ensuring riders are seen. (See Section 20)</p> <p>Maintenance regimes: Operators must ensure that all e-scooters made available to rent are maintained on an ongoing basis to ensure they are safe to operate, in good working order and are adequately charged. This should ensure that vehicles are safe to use before starting rides. (See Section 17).</p> <p>Events, incidents and emergencies: Operators will be required to work with Boroughs, TfL and Police when emergencies, incidents or special events occur to prioritise the safety of users and the general public. This includes for instance suspending the service during severe weather (e.g. snow) when there may be an increased likelihood of injuries (See Section 24)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters) and digital as well as possibly radio. The exact messages are currently in development. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. (See Section 23)</p> <p>TfL existing safety campaigns: TfL already undertakes multiple road safety campaigns, with many targeting younger drivers or soon to be drivers (Safe Drive Stay Alive). Campaigns like this, will continue to occur to motorists but, many of the messages will still be relevant to younger people who decide to use e-scooters.</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes which will focus on using the trial safely, building a culture of safe riding and TfL will encourage leaders to reach out to groups especially the youth.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual</p>
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		<p>requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Age</p>	<p>1.2 Increased risk of collision and subsequent level of injury to older pedestrians due to illegal or poor rider use such as rental e-scooters becoming street litter through poor parking E-scooters are sometimes discarded in unsuitable and unsafe areas or used inappropriately in places they shouldn't be. Older people are often reliant on the pavement for their active mobility and are more likely to suffer from more significant injuries if they trip over a discarded e-scooter or attempt to move it out of their way if it's causing obstruction to their journey. Their journey may also be blocked if their route is obstructed and they cannot safely pass it.</p>	<p>Required user training and education by the operator: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various elements, but two examples include which parts of the road e-scooters can be used on, with absolute clarity provided as to the prohibition of riding the e-scooters on footways (pavement) and where and how to safely park the e-scooters without causing obstruction. This should ensure riders know exactly where they can ride and the rules they must obey. (See Section 20).</p> <p>Parking provision will be made available: It will be the responsibility of the full-service Borough (or TfL on TfL land) to designate parking areas for e-scooters throughout the trial, and these may vary throughout the trial. (See Section 11)</p> <p>Designated parking areas will be created: E-scooters must only be deployed by operators or parked by users in designated parking areas as agreed by the relevant full-service Borough, TfL, or where applicable, on private (or other) land. Operators must ensure (via geo-fencing technology) that e-scooters are not capable of being locked/rides cannot be ended outside of a designated area therefore preventing them from being left where they are not allowed. The demarcation of designated parking areas will be set by the Boroughs or TfL for both marked and non-marked bays which must be adhered to. Detailed requirements are available in Section 11 but includes that in non-marked marked bays, e-scooters must be parked in an upright and stable position and remain upright and must not obstruct the highway (footways, cycle lanes and carriageway) or obstruct street furniture that requires pedestrian access such as benches. This should prevent e-scooters from being discarded. (See Section 11)</p> <p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas which Operators will need</p>

		<p>to adhere to via geo-fencing technology.</p> <p>Parking bay design: TfL has had a parking bay design approved by the DfT for use in the trials and this will be shared with the participating London Boroughs to ensure consistency.</p> <p>Removal of poorly left e-scooters: Any e-scooter parked outside agreed parking areas will be non-compliant and must be moved within specified timeframes, initially by the Operator and if not by TfL, the Borough or the Police. Should the mitigations above not work then there are plans in place to ensure removal of a discarded e-scooter. (See Section 11)</p> <p>Notification to operators of non-compliant parking: Operators must have efficient means of identifying when an e-scooter is left in a non-compliant place which should increase response times. (See Section 11)</p> <p>Operators must encourage good behaviour: Operators must deploy solutions that drive good user behaviour including ensuring riders understand the possible implications of their actions on others. (See Section 11)</p> <p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-Go and Go-Slow zones on their roads/in their borough at any point throughout the trial. “No-Go” areas are where e-scooters are prohibited, and “Go-Slow” areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (I.e. not within the remit of the rider). This should reduce the risk of collisions with pedestrians in areas where rental e-scooters are prohibited. (See Section 13)</p> <p>Operator customer service details to be clear: Operators must provide customer service contact details via a variety of methods (phone, email, post etc), enabling users and members of the public to, as a minimum, ask questions, make complaints, report damaged e-scooters or improper parking and request refunds. This will ensure that any user, including disabled people can contact the operator directly. (See Section 21)</p> <p>TfL’s contact centre will be available: TfL’s contact centre will remain available and ready to speak to anyone about any issues or concerns, especially if they haven’t been resolved through other means.</p> <p>The Police will undertake enforcement activity: Operation Hornet, the MPS’s safety operation around e-scooters, has now been running for over a year. The MPS run regular operations targeting e-scooters, and this work will continue during the trials. The MPS have also developed a training package on how to deal with e-scooters under the Road</p>
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		<p>Traffic Act. This has enabled various teams across the MPS to undertake enforcement activity to deal with issues involving e-scooters, including the MPS Roads and Transport Policing Command (RTPC), Parks Police, Violent Crime Task Force and Operation Venice Team, along with local policing teams and safer transport teams.</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial and how to safely use e-scooters. This should help people of all ages become more familiar with an e-scooter and how to safely use it as well as what pedestrians can expect of this new mode. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required operator safety processes: Operators must also have various safety processes in place for users including confirming that users have understood the training information before starting a ride. This should work towards ensuring riders of all ages are prepared before starting their journey (See Section 20)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters) and digital as well as possibly radio. The exact messages are currently in development and mitigations will be updated in due course. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. In addition, TfL messaging should highlight that the rental scheme is the only legal way to use e-scooters in London other than on private land. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes which will focus on using the trial safely building a culture of safe riding.</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected</p>
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		<p>via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. There are two main mechanisms through which inappropriate use and/or parking can be evaluated: 1) operators are required to share with TfL the training and education programmes undertaken and 2) near real time data will be provided by the operators and show if scooters are inappropriately parked and operators are expected to action this as per the service level agreements agreed. If an operator repeatedly fails to do this, it may limit their ability to grow their fleet size.</p> <p>incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Age</p>	<p>1.3 Increased risk of injury to BAME children as pedestrians from rental e-scooters who are 1.5 times more likely to be killed or seriously injured on the roads than non-BAME children</p>	<p>TfL safety related campaigns for children: TfL has multiple campaigns that run focused on the safety of children on the road. These include STARS and Youth Travel Ambassadors. Road Safety Club is another resource distributed to nurseries in London with an emphasis on reaching BAME communities. The programme teaches young Londoners safe behaviour around roads and delivery of these messages should enhance children’s safety on the road.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the</p>

		<p>incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p> <p>Events, incidents and emergencies: Operators will be required to work with Boroughs, TfL and Police when emergencies, incidents or special events occur to prioritise the safety of users and the general public. This includes for instance suspending the service during severe weather (e.g. snow) when there may be an increased likelihood of injuries (See Section 24)</p>
<p>Age</p>	<p>1.4 Increased risk of collision with rental e-scooters to younger and older pedestrians and subsequent increased level of injury due to rental e-scooters making little to no sound or not being clearly seen or used in shared use areas E-scooters are not always easily seen or heard and if they're not identified early enough, it could lead to a collision. Older people with slower reactions and younger people with less road awareness is more likely to suffer from collisions with e-scooters for these reasons and the level of injury could be more substantial for older people.</p>	<p>Enhanced vehicle safety features including lights and bell/horn: Operators must meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence. The vehicles must also be easily distinguishable as a rental e-scooter, with most market providers already deploying vibrant livery to boost the visibility of their e-scooters. This should make e-scooters immediately more noticeable for those with slower reactions. Operator's e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process (See Section 16).</p> <p>Additional safety processes including certain clothing: Operators should consider additional safety processes and features such as encouraging riders to wear light-coloured or fluorescent clothing and operators must post visible, easily legible, clear safety information on each e-scooter. Safety information must include requirements to obey all relevant legislation and traffic rules. This should help the riders to be more visible to older people as well as the e-scooter. (See Section 20)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various elements including how to ride and operate the device safely, and in a considerate manner to other riders and road Users, for instance by including basic elements of the highway code (e.g. avoiding vehicle blind spots). This should help riders be more aware of the different road users and pedestrians including older people when using e-scooters. (See Section 20).</p> <p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-Go and Go-Slow zones on their roads/in their borough at any point throughout the trial. "No-Go" areas are where e-scooters are prohibited, and "Go-Slow" areas are where the speed of the e-scooters must be reduced to a maximum of</p>

		<p>8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (I.e. not within the remit of the rider). This should reduce the risk of collisions with pedestrians in areas where rental e-scooters are prohibited. (See Section 13).</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services. This should help inform older people about the scheme and the safety mitigations involved. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters) and digital as well as possibly radio. The exact messages are currently in development and mitigations will be updated in due course. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes which will focus on using the trial safely which will likely include messaging on the safe use of e-scooters and building a culture of safe riding.</p> <p>TfL's contact centre will be available: TfL's contact centre will remain available and ready to speak to anyone about any issues or concerns, especially if they haven't been resolved through other means.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected</p>
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		<p>via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Age</p>	<p>1.5 Increased risk of collision with a rental e-scooter to younger and older pedestrians and subsequent increased level of injury to older pedestrians due to the speed of rental e-scooters Some feel the speed of e-scooters is too fast and if people are unable to move out of the path of an e-scooter in time it may lead to collisions. Older people with slower reactions and younger people with less road awareness are more likely to suffer from collisions with e-scooters for these reasons and the level of injury could be more substantial for older people.</p>	<p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-Go and Go-Slow zones on their roads/in their borough at any point throughout the trial. “No-Go” areas are where e-scooters are prohibited, and “Go-Slow” areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (i.e. not within the remit of the rider). This should immediately reduce the risk of speed contributing to incidents in high risk areas for older people. (See Section 13)</p> <p>The maximum speed of the vehicle can be reduced: If the participating borough, TfL and London Councils are in unanimous agreement the maximum speed of e-scooters that is allowed (currently 15.5mph) can be reduced and operators would have to ensure compliance. Should the speed be deemed unsuitable or contributing to incidents it can be reduced. (See Section 16)</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services which should ensure older people have an immediate way of contacting someone if something occurs. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p>

		<p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various elements including where e-scooters can and cannot be ridden, including the different types of areas relevant to users (including No-go and Go-slow Zones) and the implications of entering each area. These areas, along with designated parking areas, will need to be communicated clearly to users on a map throughout the trial although vehicles entering these areas will automatically reduce in speed. (See Section 20).</p> <p>Additional safety processes including graduated speeds: Operators should also consider what additional steps they can take for first-time riders specifically to improve the safety of first-time trips, such as graduated speed limits. The procurement process will identify the extent to which it can be applied. (See Section 20)</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters) and digital as well as possibly radio. The exact messages are currently in development. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes which will focus on using the trial safely which will likely include messaging on using speed appropriately for users and assuring non-users such as older people of the controls that are in place.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report</p>
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		<p>incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Age</p>	<p>1.6 Increased fear of going out for some older pedestrians as a result of the introduction of rental e-scooters as a new mode of transport Some feel anxious and worried about the introduction of e-scooters. Older people, especially those that have had falls, are more likely to be nervous and will possibly stay home to avoid interactions leading to isolation and loneliness.</p>	<p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters), digital and possibly radio. The exact messages are currently in development. It is hoped that non-users, especially older people will see these messages via the channels above and feel encouraged that safety is the focus of the trial. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be nervous such as older people and explaining how the trial works and what safety mitigations are in place such as parking, geo-fencing and restricted areas. Programmes such as the Inclusive Streetspace engagement programme seek to address the perceived feelings of being unsafe through working on design solutions together that protect safety of both riders and pedestrians on our streets, involving disability campaigners, TfL designers and planners, as well as the cycling and walking lobby.</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services, share community feedback and the complaints channels. It is hoped via this outreach that non-users, especially older people will learn of the steps being taken by operators and riders to adopt safe behaviours and that they feel encouraged to maintain their normal activities. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is</p>

		<p>hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. The perceptions and attitudes of non-users and gathering insight on the impact e-scooters have on all Londoners is a key objective for the trial. TfL are working on a number of approaches that can be used to ensure the option to feedback is available to non-users throughout the duration of the trial. (See Section 14)</p> <p>No-go and Go-slow areas: TfL and all participating boroughs may introduce or otherwise vary any No-go and Go-Slow zones on their roads/in their borough at any point throughout the trial. “No-go” areas are where e-scooters are prohibited, and “Go-Slow” areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (I.e. not within the remit of the rider). (See Section 13)</p> <p>Enhanced vehicle safety features: Operators will be required to meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence and be seen more easily. Operator’s e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process (See Section 16)</p>
<p>Age</p>	<p>1.7 Increased risk of Covid-19 to older riders of rental e-scooters E-scooters could contribute to the spread of Covid-19 through multiple use. The disease can be especially harmful to older people who are more at risk of death from the disease.</p>	<p>Cleaning of e-scooters: The operator must ensure that all e-scooters made available to rent are maintained to ensure they are safe to operate, in good working order, are adequately charged and cleaned regularly. (See Section 17)</p> <p>Maintenance regimes: Maintenance regimes must include regular and deep cleaning and disinfection of e-scooters, with additional processes in place for e-scooter touchpoints on an ongoing basis e.g. handlebars, brake levels etc to be cleaned once a day. It will be for the Operators to present stringent cleaning processes and maintain these. These cleaning process should ensure vehicles are kept as clean as possible therefore reducing the risk of transmission (See Section 17)</p>

		<p>TfL Covid-19 marketing: TfL has multiple COVID-19 marketing messages in place, including on handwashing before and after your travel. These messages will remain live on the network and should help to further encourage all to wash their hands in the fight against COVID-19.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Operators are required to give TfL regular updates on the cleaning regime they are using. (See Section 14)</p> <p>User education: Operators must make easily available within their apps at all times, comprehensive and clear training to users, including on any hygiene-related recommendations, in particular that users are recommended to wash their hands thoroughly before and after use. (See Section 20)</p>
<p>Age</p>	<p>1.8 Increased fear of hate crime to some younger riders of rental e-scooters at collection and drop off locations</p> <p>Younger people are at a higher risk of hate crime and e-scooter parking locations could be in areas that make younger people more at risk of this crime if they’re not chosen carefully.</p>	<p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas which Operators will need to adhere to via geo-fencing technology. As well as being in areas which are easily accessible, they should also select areas which are well lit, allow people to feel safe and ideally have CCTV to mitigate against the threat of hate crime occurring whilst starting or ending their journey. This is applicable to all groups who are at a higher risk of hate crime.</p> <p>Parking bay design: TfL has had a parking bay design approved by the DfT for use in the trials and this will be shared with the participating London Boroughs to ensure consistency.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. The perception of non-users and gathering insight on the impact e-scooters have on all Londoners is a key objective for the trial. TfL are working on a number of approaches that can be used to ensure the option to feedback is available to non-users throughout the duration of the trial. (See Section 14)</p>
<p>Age</p>	<p>1.9</p>	<p>Low income plans: The operator is free to set its own pricing for its service to users.</p>

	<p>Some younger people may be disproportionality excluded from using rental e-scooters due to lower than average incomes</p>	<p>However, it should include consideration of an affordable service that competes with other transport options. Throughout the trial all operators must offer low income/equitable access customer plans to support the use of rental e-scooters by disadvantaged groups in London. Plans must be visible, and the pricing structure explained clearly to Users. TfL hopes to see plans that support younger people’s access to the trial and Operators’ low income/equitable access proposals will be taken into consideration during the operator selection process. (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. An important learning objective of the trial (see Section 2) is to understand any inequality of access. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. (See Section 14)</p>
<p>Age</p>	<p>1.10 Some older people may be disproportionality excluded from using rental e-scooters due to lack of a smartphone Access to a rental e-scooter scheme is likely to be via an app. Older people may feel excluded or put off by a lack of a smart phone or digital awareness.</p>	<p>Operator education and outreach for users and non-users must have maximum reach: The operator must conduct education for users and outreach for both users and non-users, as well as with community and stakeholder organisations. This should be designed to have the maximum reach, including for those who would not come into contact with the app or digital channels such as older people. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Alternatives to smartphone: Operators should consider how they can support inclusivity by providing an alternative to smartphone access and to ensure people know about such plans they must be clearly listed in a variety of places so that without a smartphone older people, if they wish to ride, have the same opportunity even without a smartphone. (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected</p>

		<p>via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
Age	<p>1.11 Generation of stress and anxiety for the very young as a result of being involved in or witnessing an incident involving a rental e-scooter</p>	<p>Incident support: TfL offers people support via The Sarah Hope Line if they have been involved in, or affected by, a life-changing incident on the TfL network. A dedicated team are on hand to make sure that people get the help they deserve, and work in partnership with organisations that can provide further specialised support.</p>
Disability	<p>2.1 Increased risk of collision and subsequent injury to some disabled people, especially the blind and partially sighted and those in wheelchairs due to illegal or poor rider use including rental e-scooters becoming street litter through poor parking E-scooters are sometimes discarded in unsuitable and unsafe areas or used inappropriately in places they shouldn’t be. Disabled people especially, blind and partially sighted people are reliant on the pavement for safe mobility and are more likely to fall over a discarded e-scooter, this could lead to injury and a loss of confidence. Their journey may also be blocked if their route is obstructed and they cannot safely pass it which could be even more prevalent for those in wheelchairs.</p>	<p>Enhanced vehicle safety features including lights and bell/horn: Operators must meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence. The vehicles must also be easily distinguishable as a rental e-scooter, with most marker providers deploying vibrant livery to boost the visibility of their scooters. Operator’s e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process (See Section 16).</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various elements, but two examples include which parts of the road e-scooters can be used on, with absolute clarity provided as to the prohibition of riding the e-scooters on footways (pavement) and where and how to safely park the e-scooters without causing obstruction, including elements of disability awareness to ensure riders are aware of the possible implications of poorly parked e-scooters. This should ensure riders know exactly where they can ride and the rules, they must obey leading to safer road behaviours. (See Section 20).</p> <p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-Go and Go-Slow zones on their roads/in their borough</p>

		<p>at any point throughout the trial. “No-Go” areas are where e-scooters are prohibited, and “Go-Slow” areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (I.e. not within the remit of the rider). This should reduce the risk of collisions with pedestrians in areas where rental e-scooters are prohibited. (See Section 13).</p> <p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas which Operators will need to adhere to via geo-fencing technology.</p> <p>Parking bay design: TfL has had a parking bay design approved by the DfT for use in the trials and this will be shared with the participating London Boroughs to ensure consistency.</p> <p>Parking provision will be made available: It will be the responsibility of the full-service Borough (or TfL on TfL land) to designate parking areas for e-scooters throughout the trial and these may vary throughout the trial. (See Section 11)</p> <p>Designated parking areas will be created: E-scooters must only be deployed by operators or parked by users in designated parking areas as agreed by the relevant full-service Borough, TfL, or where applicable, on private (or other) land. Operators must ensure (via geo-fencing technology) that e-scooters are not capable of being locked/rides cannot be ended outside of a designated area, therefore preventing them from being left where they are not allowed. The demarcation of designated parking areas will be set by the Boroughs or TfL for both marked and non-marked bays which must be adhered to. Detailed requirements are available in Section 11 but includes that in non-marked marked bays, e-scooters must be parked in an upright and stable position and remain upright and must not obstruct the highway (footways, cycle lanes and carriageway) or obstruct street furniture that requires pedestrian access such as benches or should not be adjacent to disabled parking or loading bays. This should prevent e-scooters from being discarded poorly and impacting those with disabilities. (See Section 11)</p> <p>Removal of poorly left e-scooters: Any e-scooter parked outside agreed parking areas will be non-compliant and must be moved within specified timeframes, initially by the Operator and if not by TfL, the Borough or the Police. Should the mitigations above not work then there are plans in place to ensure removal of a discarded e-scooter. (See Section 11)</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as</p>
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		<p>maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Notification to operators of non-compliant parking: Operators must have efficient means of identifying when an e-scooter is left in a non-compliant place which should increase response times. (See Section 11)</p> <p>Operators must encourage good behaviour: Operators must deploy solutions that drive good user behaviour including education which includes elements of disability awareness so that riders understand the possible implications of their actions. This should help rider understand and manage their behaviours to accommodate the different ways other people use the roads (See Section 11)</p> <p>Operator customer service details to be clear: Operators must provide customer service contact details via a variety of methods (phone, email, post etc), enabling users and members of the public to, as a minimum, ask questions, make complaints, report damaged e-scooters or improper parking and request refunds. This will ensure that any user, including disabled people can contact the operator directly. (See Section 21)</p> <p>TfL's contact centre will be available: TfL's contact centre will remain available and ready to speak to anyone about any issues or concerns, especially if they haven't been resolved through other means.</p> <p>The Police will undertake enforcement activity: Operation Hornet, the MPS's safety operation around e-scooters, has now been running for over a year. The MPS run regular operations targeting e-scooters, and this work will continue during the trials. The MPS have also developed a training package on how to deal with e-scooters under the Road Traffic Act. This has enabled various teams across the MPS to undertake enforcement activity to deal with issues involving e-scooters, including the MPS Roads and Transport Policing Command (RTPC), Parks Police, Violent Crime Task Force and Operation Venice Team, along with local policing teams and safer transport teams.</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial and how to safely use e-scooters. This should help people of all ages become more familiar with an e-scooter and how to safely use it as well as what pedestrians can expect of this new mode. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p>
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		<p>this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p> <p>Events, incidents and emergencies: Operators will be required to work with Boroughs, TfL and Police when emergencies, incidents or special events occur to prioritise the safety of users and the general public. This includes for instance suspending the service during severe weather (e.g. snow) when there may be an increased likelihood of injuries (See Section 24)</p>
<p>Disability</p>	<p>2.2 Increased risk of collision and subsequent injury to some disabled people, especially the blind and partially sighted, due to rental e-scooters making little to no sound or not being clearly seen or used in shared use areas</p> <p>E-scooters are not seen (or easily seen) or heard, especially by those who are blind or visually impaired. If they're not identified early enough, or a rider isn't aware of the pedestrian's disabilities it could lead to an increased risk of collision and the level of injury could be more significant as they weren't able to protect themselves ahead of the collision.</p>	<p>Enhanced vehicle safety features including lights and bell/horn: Operators must meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence. This should aid detection of e-scooters for those that are blind or partially sighted, via the noise and for those that have hearing loss the light may aid visibility. Operator's e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process. The vehicles must also be easily distinguishable as a rental e-scooter, with most market providers already deploying vibrant livery to boost the visibility of their e-scooters. (See Section 16).</p> <p>Additional safety processes including certain clothing: Operators should consider additional safety processes and features such as encouraging riders to wear light-coloured or fluorescent clothing and operations must post visible, easily legible, clear safety information on each e-scooter. Safety information must include requirements to obey all relevant legislation and trial rules. This should help the riders to be more visible to those that have hearing loss. (See Section 20)</p> <p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-Go and Go-Slow zones on their roads/in their borough at any point throughout the trial. "No-Go" areas are where e-scooters are prohibited, and "Go-Slow" areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (I.e. not within the remit of the rider). This should reduce the risk of collisions with pedestrians in areas where rental e-scooters are prohibited. (See Section 13).</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves</p>

		<p>assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various elements, but two examples include which parts of the road e-scooters can be used on, with absolute clarity provided as to the prohibition of riding the e-scooters on footways (pavement) and where and how to safely park the e-scooters without causing obstruction. This should ensure riders know exactly where they can ride and the rules they must obey. (See Section 20).</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial and how to safely use e-scooters. This should help people of all ages become more familiar with an e-scooter and how to safely use it as well as what pedestrians can expect of this new mode. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters) and digital as well as possibly radio. The exact messages are currently in development. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be nervous such as disabled people and explaining how the trial works and what safety mitigations are in place such as “Go-Slow” areas and designated parking.</p> <p>TfL’s contact centre will be available: TfL’s contact centre will remain available and ready to speak to anyone about any issues or concerns, especially if they haven’t been resolved through other means.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected</p>
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		<p>from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Disability</p>	<p>2.3 Increased risk of collision and subsequent injury to some disabled people due to the speed of rental e-scooters Some feel the speed of e-scooters is too fast. Those that are visually impaired, blind or have restricted movement due to a disability may have slower reactions and are therefore more likely to suffer from collisions and possibly more significant injuries if they are unable to move out of the path of an e-scooter in time.</p>	<p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-go and Go-Slow zones on their roads/in their borough at any point throughout the trial. “No-go” areas are where e-scooters are prohibited, and “Go-Slow” areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (i.e. not within the remit of the rider). This should immediately reduce the risk of speed contributing to incidents in high risk areas for disabled people. (See Section 13)</p> <p>The maximum speed of the vehicle can be reduced: If the participating borough, TfL and London Councils are in unanimous agreement the maximum speed of e-scooters that is allowed (currently 15.5mph) can be reduced and operators would have to ensure compliance. Should the speed be deemed unsuitable or contributing to incidents it can be reduced. (See Section 16)</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services which should ensure disabled people</p>

		<p>have an immediate way of contacting someone if something occurs. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various elements including where e-scooters can and cannot be ridden, including the different types of areas relevant to users (including No-go and Go-slow Zones) and the implications of entering each area. These areas, along with designated parking areas, will need to be communicated clearly to users on a map throughout the trial although vehicles entering these areas will automatically reduce in speed (See Section 20).</p> <p>Additional safety processes including graduated speeds: Operators should also consider what additional steps they can take for first-time riders specifically to improve the safety of first-time trips, such as graduated speed limits. This will be taken into consideration during the procurement process. (See Section 20)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters) and digital as well as possibly radio. The exact messages are currently in development and will be updated in due course as the mitigation develops. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be nervous such as disabled people and explaining how the trial works and what safety mitigations are in place such as “Go-Slow” areas and designated parking.</p> <p>TfL’s contact centre will be available: TfL’s contact centre will remain available and ready to speak to anyone about any issues or concerns, especially if they haven’t been resolved through other means.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure</p>
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		<p>TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Disability</p>	<p>2.4 Increased fear of going out for some disabled people as a result of the introduction of rental e-scooters as a new mode of transport Some feel anxious and worried about the introduction of e-scooters. Blind or partially sighted people in particular are likely to be nervous and will possibly stay home to avoid interactions leading to isolation and loneliness. TfL expect this to affect others with disabilities too such as those with brittle bone disease, those with impaired movement and possibly autism.</p>	<p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters), digital and possibly radio. The exact messages are currently in development and will be updated in due course. It is hoped that non-users, especially disabled people will see these messages via the channels above and feel encouraged that safety is the main focus of the trial and that they feel assured to continue with their normal activities. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be nervous such as disabled people and explaining how the trial works and what safety mitigations are in place such as “Go-Slow” areas and designated parking. Programmes such as the Inclusive Streetspace engagement programme seek to address the perceived feelings of being unsafe through working on design solutions together that protect safety of both riders and pedestrians on our streets, involving disability campaigners, TfL designers and planners, as well as the cycling and walking lobby; to further mitigate this impact.</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services, share community feedback and the complaints channels. It is hoped via this outreach that non-users, especially those with disabilities will learn of the steps being taken by operators and riders to adopt safe behaviours and that they feel encouraged to maintain their normal activities. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p>

		<p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. The perception of non-users and gathering insight on the impact e-scooters have on all Londoners is a key objective for the trial. TfL are working on a number of approaches that can be used to ensure the option to feedback is available to non-users throughout the duration of the trial. (See Section 14)</p> <p>No-go and Go-slow areas: TfL and all participating boroughs may introduce or otherwise vary any No-go and Go-Slow zones on their roads/in their borough at any point throughout the trial. “No-go” areas are where e-scooters are prohibited, and “Go-Slow” areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (i.e. not within the remit of the rider). (See Section 13)</p> <p>Enhanced vehicle safety features: Operators will be required to meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence and be seen more easily. Operator’s e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process (See Section 16)</p>
<p>Disability</p>	<p>2.5 Some disabled people may be disproportionality excluded from using rental e-scooters due to lower than average</p>	<p>Low income plans: The operator is free to set its own pricing for its service to users. However, it should include consideration of an affordable service that competes with other transport options. Throughout the trial all operators must offer low income/equitable access customer plans to support the use of rental e-scooters by disadvantaged groups in</p>

	<p>incomes</p>	<p>London. Plans must be visible, and the pricing structure explained clearly to users. TfL hopes to see plans that disabled people that are able to use e-scooters be able to access it and operators' low income/equitable access proposals will be taken into consideration during the operator selection process. (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
<p>Disability</p>	<p>2.6 Some disabled people may be disproportionality excluded from using rental e-scooters due to lack of a smartphone Access to a rental e-scooter scheme is likely to be via an app. Some disabled people may feel excluded or put off by a lack of a smart phone or digital awareness.</p>	<p>Operator educations and outreach for users and non-users must have maximum reach: The operator must conduct education for users and outreach for both users and non-users, as well as with community and stakeholder organisations. This should be designed to have the maximum reach, including for those who would not come into contact with the app or digital channels such as some disabled people. Even if this is not about using the service, the outreach programmes will be beneficial in helping people understand what is involved in the trials. (See Section 20)</p> <p>Alternatives to smartphone: Operators should consider how they can support inclusivity by providing an alternative to smartphone access and to ensure people know about such plans they must be clearly listed in a variety of places so that without a smartphone some disabled people, if they wish to ride and feel safe to do so, have the same opportunity even without a smartphone. (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their</p>

		<p>evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
<p>Gender</p>	<p>3.1 Some women may be disproportionality excluded from using rental e-scooters due to lower than average incomes</p>	<p>Low income plans: Operators are free to set their own pricing for its service to users. However, it should include consideration of an affordable service that competes with other transport options. Throughout the trial all operators must offer low income/equitable access customer plans to support the use of rental e-scooters by disadvantaged groups in London. Plans must be visible, and the pricing structure explained clearly to users. TfL hopes to see plans that support those with lower incomes able to access it and Operators' low income/equitable access proposals will be taken into consideration during the operator selection process (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
<p>Gender</p>	<p>3.2 Men may suffer an increased risk of a collision on a rental e-scooter Falls from e-scooters are expected partly due to being a new and unknown mode of transport and not enough awareness of how to use them. Men are more likely to be involved in a collision than women.</p>	<p>Enhanced vehicle safety features: Operators must meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence and be seen more easily by other road users. Operator's e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process. (See Section 16)</p> <p>Operator education and outreach for users and non-users: Operators must conduct</p>

		<p>education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services. This should help men become more familiar with an e-scooter and how to safely use it before their journey. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users on how to ride e-scooters safely and considerately, with training mandatory for first time riders before they can start a ride. This information must be made available in a format that maximises understanding, including for those whose first language may not be English. This should help all riders understand how to safely ride their e-scooter. (See Section 20)</p> <p>Required safety processes: Operators must also have various safety processes in place for users including one for first time users confirming they have understood the training information in advance of starting a ride and that promote the use of helmets. This should work towards ensuring men are prepared before starting their journey. (See Section 20)</p> <p>Additional safety processes: Operators should consider additional safety processes and features such as encouraging riders to wear light-coloured or fluorescent clothing. This should help other vehicles ensuring riders are seen. (See Section 20)</p> <p>Maintenance regimes: The operator must ensure that all e-scooters made available to rent are maintained on an ongoing basis to ensure they are safe to operate, in good working order and are adequately charged. This should ensure that vehicles are safe to use before starting rides. (See Section 17).</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters), digital and possibly radio. The exact messages are currently in development and will be updated in due course. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be at more risk on the e-scooters such as men and working harder to deliver training and key safety messaging to them and building a culture of safe riding.</p> <p>TfL existing safety campaigns: TfL already undertakes multiple road safety campaigns,</p>
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		<p>with many targeting younger drivers or soon to be drivers (Safe Drive Stay Alive). Campaigns like this, will continue to occur to motorists but, many of the messages, that are consistent in other schemes will still be relevant to those who decide to use e-scooters.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p> <p>Events, incidents and emergencies: Operators will be required to work with Boroughs, TfL and Police when emergencies, incidents or special events occur to prioritise the safety of users and the general public. This includes for instance suspending the service during severe weather (e.g. snow) when there may be an increased likelihood of injuries (See Section 24)</p>
<p>Gender</p>	<p>3.3 Some women may feel excluded from using a rental e-scooter if cycling trends correlate</p>	<p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services. This should help women become more familiar with an e-scooter and how to safely use it before their journey and provide them with more confidence to experience e-scooters if safety is the cause of their possible exclusion. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users on how to ride e-scooters</p>

		<p>safely and considerately, with training mandatory for first time riders before they can start a ride. This information must be made available in a format that maximises understanding, including for those whose first language may not be English. This should help all riders, including women understand how to safely ride their e-scooter and grow confidence which could encourage participation. (See Section 20)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters), digital and possibly radio. The exact messages are currently in development and will be updated in due course. It is hoped that non-users, including women, will see these messages via the channels above and feel encouraged that safety is the main focus of the trial and that they feel assured to continue with their normal activities knowing other road users are aware of the presence of e-scooter riders. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to highlight to women the safety precautions in place and building a culture of safe riding.</p> <p>Ongoing engagement programmes such as the Inclusive Streetspace Engagement and Cycle Your City, aim to understand the barriers to cycling and better diversify the uptake of active travel modes such as cycling. Such programmes if successful in encouraging cycling could translate to e-scooters especially if mitigations put in place to aid cycling adoption also encourage safe rental e-scooter use. These programmes are continuing and will be able to include activity during the trial to understand how to further mitigate this impact.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important</p>
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		learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)
Gender	<p>3.4 Increased fear and risk of hate crime to some women riders of rental e-scooters at collection and drop off locations Women are at a higher risk of hate crime and e-scooter parking locations could be in areas that make younger people more at risk of this crime if they're not chosen carefully.</p>	<p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas. As well as being in areas which are easily accessible, they should also select areas which are well lit, allow people to feel safe and ideally have CCTV to mitigate against the threat of hate crime occurring whilst starting or ending their journey. This is applicable to all groups who are at a higher risk of hate crime. Monitoring, data collection and evaluation: Reporting hate crime can be encouraged through the feedback mechanisms which will be put in place, as well as directly asked for during survey work. (See Section 14)</p>
Gender	<p>3.5 Increased risk of Covid-19 to men from rental e-scooters E-scooters could contribute to the spread of Covid-19 through multiple use. The disease can be especially harmful to men who are more at risk of a serious illness</p>	<p>Cleaning of e-scooters: Operators must ensure that all e-scooters made available to rent are maintained to ensure they are safe to operate, in good working order, are adequately charged and cleaned regularly. (See Section 17) Maintenance regimes: Maintenance regimes must include regular and deep cleaning and disinfection of e-scooters, with additional processes in place for e-scooter touchpoints on an ongoing basis e.g. handlebars, brake levels etc to be cleaned once a day. It will be for the operators to present stringent cleaning processes and maintain these (See Section 17) TfL Covid-19 marketing: TfL has multiple COVID-19 marketing messages in place, including on handwashing before and after your travel. These messages will remain live on the network and should help to further encourage all to wash their hands in the fight against COVID-19. Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Operators are required to give TfL regular updates on the cleaning regime they are using. (See Section 14) User education: Operators must make easily available within their apps at all times, comprehensive and clear training to users, including on any hygiene-related recommendations, in particular that Users are recommended to wash their hands thoroughly before and after use. (See Section 20)</p>
Pregnancy/	4.1	Enhanced vehicle safety features: Operators must meet the minimum DfT requirements

<p>Maternity</p>	<p>Pregnant women likely to suffer from more significant injuries due to falls from rental e-scooters as a rider Falls from e-scooters are expected partly due to being a new and unknown mode of transport and not enough awareness of how to use them. Pregnant women are more likely to suffer from more significant injuries if they fall from an e-scooter whilst riding which could lead to harm of their baby as well as themselves.</p>	<p>as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence and be seen more easily. Operator's e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process. (See Section 16)</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services. This should help pregnant women become more familiar with an e-scooter and how to safely use it before their journey leading to safer road behaviours. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users on how to ride e-scooters safely and considerately, with training mandatory for first time riders before they can start a ride. This information must be made available in a format that maximises understanding, including for those whose first language may not be English. This should help all riders understand how to safely ride their e-scooter leading to safer road behaviours. (See Section 20)</p> <p>Required safety processes: Operators must also have various safety processes in place for users including one for first time users confirming they have understood the training information in advance of starting a ride and that promote the use of helmets. This should work towards ensuring pregnant women who choose to ride are safer on the road. (See Section 20)</p> <p>Additional safety processes: Operators should consider additional safety processes and features such as encouraging riders to wear light-coloured or fluorescent clothing. This should help other vehicles ensure riders are seen. (See Section 20)</p> <p>Maintenance regimes: The operator must ensure that all e-scooters made available to rent are maintained on an ongoing basis to ensure they are safe to operate, in good working order and are adequately charged. This should ensure that vehicles are safe to use before starting rides. (See Section 17).</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels</p>
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		<p>including print (posters), digital and possibly radio. The exact messages are currently in development and will be updated in due course. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be at more risk on the e-scooters such as those who are pregnant and work harder to deliver training and key safety messaging to them and building a culture of safe riding.</p> <p>TfL existing safety campaigns: TfL already undertakes multiple road safety campaigns, with many targeting younger drivers or soon to be drivers (Safe Drive Stay Alive). Campaigns like this, will continue to occur to motorists but, many of the messages, that are consistent in other schemes will still be relevant to those who decide to use e-scooters therefore contributing to seeing safer behaviours on the road.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p> <p>Events, incidents and emergencies: Operators will be required to work with Boroughs, TfL and Police when emergencies, incidents or special events occur to prioritise the safety of users and the general public. This includes for instance suspending the service during severe weather (e.g. snow) when there may be an increased likelihood of injuries (See Section 24)</p>
<p>Pregnancy/ Maternity</p>	<p>4.2 Increased risk of collision and subsequent</p>	<p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various</p>

	<p>injury to some pregnant women and those with prams due to illegal or poor rider use including rental e-scooters becoming street litter through poor parking</p> <p>E-scooters are sometimes discarded in unsuitable and unsafe areas or used inappropriately in places they shouldn't be. Pregnant women are more risk of a severe injury if they fall whilst trying to navigate a discarded e-scooter and fall on their bump. Men or women with prams are reliant on the pavement for safe mobility and are more likely to suffer from tripping over a discarded e-scooter Their journey may also be blocked if their route is obstructed and they cannot safely pass it.</p>	<p>elements, but two examples include which parts of the road e-scooters can be used on, with absolute clarity provided as to the prohibition of riding the e-scooters on footways (pavement) and where and how to safely park the e-scooters without causing obstruction. This should ensure riders know exactly where they can ride and the rules, they must obey leading to safer road behaviours. (See Section 20).</p> <p>Parking provision will be made available: It will be the responsibility of the full-service borough (or TfL on TfL land) to designate parking areas for e-scooters throughout the trial and these may vary throughout the trial. (See Section 11)</p> <p>Designated parking areas will be created: E-scooters must only be deployed by operators or parked by users in designated parking areas as agreed by the relevant full-service Borough, TfL, or where applicable, on private (or other) land. Operators must ensure (via geo-fencing technology) that e-scooters are not capable of being locked/rides cannot be ended outside of a designated area, therefore preventing them from being left where they are not allowed. The demarcation of designated parking areas will be set by the Boroughs or TfL for both marked and non-marked bays which must be adhered to. Detailed requirements are available in Section 11 but includes that in non-marked marked bays, e-scooters must be parked in an upright and stable position and remain upright and must not obstruct the highway (footways, cycle lanes and carriageway) or obstruct street furniture that requires pedestrian access such as benches. This should prevent e-scooters from being discarded poorly and impacting those with pregnant women or those with prams who would find it more difficult to move round them, or pregnant women who would likely suffer a more substantial injury if they tripped over them. (See Section 11)</p> <p>Removal of poorly left e-scooters: Any e-scooter parked outside agreed parking areas will be non-compliant and must be moved within specified timeframes, initially by the operator and if not by TfL, the Borough or the Police. Should the mitigations above not work then there are plans in place to ensure removal of a discarded e-scooter. (See Section 11)</p> <p>Notification to operators of non-compliant parking: Operators must have efficient means of identifying when an e-scooter is left in a non-compliant place which should increase response times. (See Section 11)</p> <p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-Go and Go-Slow zones on their roads/in their borough at any point throughout the trial. "No-Go" areas are where e-scooters are prohibited, and "Go-Slow" areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator</p>
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		<p>must ensure compliance and the reduction or removal of motor output must be automatic (I.e. not within the remit of the rider). This should reduce the risk of collisions with pedestrians in areas where rental e-scooters are prohibited. (See Section 13).</p> <p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas which Operators will need to adhere to via geo-fencing technology.</p> <p>Parking bay design: TfL has had a parking bay design approved by the DfT for use in the trials and this will be shared with the participating London Boroughs to ensure consistency.</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Operators must encourage good behaviour: Operators must deploy solutions that drive good user behaviour including education which includes elements of disability awareness so that riders understand the possible implications of their actions. The education broadly should make riders aware of their behaviours so that they accommodate the different ways other people use the roads or what makes someone higher risk. (See Section 11)</p> <p>Operator customer service details to be clear: Operators must provide customer service contact details via a variety of methods (phone, email, post etc), enabling users and members of the public to, as a minimum, ask questions, make complaints, report damaged e-scooters or improper parking and request refunds. This will ensure that any user, including pregnant women and those with prams can contact the operator directly. (See Section 21)</p> <p>TfL's contact centre will be available: TfL's contact centre will remain available and ready to speak to anyone about any issues or concerns, especially if they haven't been resolved through other means.</p> <p>The Police will undertake enforcement activity: Operation Hornet, the MPS's safety operation around e-scooters, has now been running for over a year. The MPS run regular operations targeting e-scooters, and this work will continue during the trials. The MPS have also developed a training package on how to deal with e-scooters under the Road Traffic Act. This has enabled various teams across the MPS to undertake enforcement activity to deal with issues involving e-scooters, including the MPS Roads and Transport Policing Command (RTPC), Parks Police, Violent Crime Task Force and Operation Venice</p>
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		<p>Team, along with local policing teams and safer transport teams.</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial and how to safely use e-scooters. This should ensure everyone becomes more familiar with an e-scooter and how to safely use it as well as what pedestrians, including pregnant women and those with prams can expect of this new mode. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required operator safety processes: Operators must also have various safety processes in place for users including confirming that users have understood the training information before starting a ride. This should work towards ensuring all riders are prepared before starting their journey and demonstrate safer road behaviours. (See Section 20)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters), digital and possibly radio. The exact messages are currently in development and will be updated in due course. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. In addition, TfL messaging should highlight that the rental scheme is the only legal way to use e-scooters in London other than on private land. (See Section 23)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. There are two main mechanisms through which inappropriate use and/or parking can be minimised: 1) operators are required to share with TfL the training and education programmes undertaken and 2) near real time data will be provided by the operators and show if scooters are inappropriately parked and operators are expected to action this as per the SLAs agreed. If an operator repeatedly fails to do this, it may limit their ability to grow their fleet size. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to</p>
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		<p>log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Pregnancy/ Maternity</p>	<p>4.3 Increased risk of collision and subsequent injury to some pregnant women or those with prams due to the speed of rental e-scooters especially in shared space areas Some feel the speed of e-scooters is too fast. Pregnant women may have restricted movement and slower reactions and are therefore more likely to suffer from collisions and possibly more significant injuries if they are unable to move out of the path of an e-scooter in time and fall on their bump. Children in prams could also be injured if involved in a collision with an e-scooter due to its speed.</p>	<p>No-go and Go-slow areas to be introduced: TfL and all participating boroughs may introduce or otherwise vary any No-go and Go-Slow zones on their roads/in their borough at any point throughout the trial. “No-go” areas are where e-scooters are prohibited, and “Go-Slow” areas are where the speed of the e-scooters must be reduced to a maximum of 8mph. This automation will be enabled through geofence technology, which will set a virtual geographic boundary that the e-scooters will be unable to ride across (in no-go areas) or will slow down the e-scooters upon crossing (in go-slow areas). The Operator must ensure compliance and the reduction or removal of motor output must be automatic (I.e. not within the remit of the rider). This should immediately reduce the risk of speed contributing to incidents in high risk areas for pregnant women or those with prams. (See Section 13)</p> <p>The maximum speed of the vehicle can be reduced: If the participating borough, TfL and London Councils are in unanimous agreement the maximum speed of e-scooters that is allowed (currently 15.5mph) can be reduced and operators would have to ensure compliance. Should the speed be deemed unsuitable or contributing to incidents it can be reduced. (See Section 16)</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services which should ensure disabled people have an immediate way of contacting someone if something occurs. This should help pregnant women and those with prams become more familiar e-scooters and grow their</p>

		<p>confidence that riders have also been educated. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users. This includes various elements including where e-scooters can and cannot be ridden, including the different types of areas relevant to users (including No-go and Go-slow Zones) and the implications of entering each area. These areas, along with designated parking areas, will need to be communicated clearly to users on a map throughout the trial although vehicles entering these areas will automatically reduce in speed. (See Section 20)</p> <p>Additional safety processes including graduated speeds: Operators should also consider what additional steps they can take for first-time riders specifically to improve the safety of first-time trips, such as graduated speed limits. This has been taken into consideration during the procurement process (See Section 20)</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters) and digital as well as possibly radio. The exact messages are currently in development and will be updated in due course as the mitigation develops. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be nervous, particularly pregnant women and those pushing prams and explaining how the trial works and what safety mitigations are in place such as “Go-Slow” areas and designated parking.</p> <p>TfL’s contact centre will be available: TfL’s contact centre will remain available and ready to speak to anyone about any issues or concerns, especially if they haven’t been resolved through other means.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure</p>
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		<p>TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p>
<p>Pregnancy/ Maternity</p>	<p>4.4 Men or women on maternity/paternity may be disproportionality excluded from using rental e-scooters due to lower than average incomes</p>	<p>Low income plans: The operator is free to set its own pricing for its service to Users. However, it should include consideration of an affordable service that competes with other transport options. Throughout the trial all operators must offer low income/equitable access customer plans to support the use of rental e-scooters by disadvantaged groups in London. Plans must be visible, and the pricing structure explained clearly to Users. TfL hopes to see plans that support those with lower incomes able to access it and operators' low income/equitable access proposals will be taken into consideration during the operator selection process (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
<p>Pregnancy/ Maternity</p>	<p>4.5 Increased fear of going out for some pregnant women or those on maternity/paternity as a result of the introduction of rental e-scooters as a new mode of transport</p>	<p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters), digital and possibly radio. The exact messages are currently in development and will be updated in due course. It is hoped that non-users, especially pregnant women will see these messages via the channels above and feel encouraged</p>

	<p>Some feel anxious and worried about the introduction of e-scooters and how it could adversely affect them and their activities.</p>	<p>that safety is the main focus of the trial and that they feel assured to continue with their normal activities. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be nervous such as pregnant women and those with prams and explaining how the trial works and what safety mitigations are in place such as “Go-Slow” areas and designated parking.</p> <p>Operator education and outreach for users and non-users: Operators must conduct education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services, share community feedback and the complaints channels. It is hoped via this outreach that non-users, including pregnant women will learn of the steps being taken by operators and riders to adopt safe behaviours and that they feel encouraged to maintain their normal activities. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Ability to amend numbers: Via the permitted fleet size review process (led by TfL, London Councils and participating Boroughs) vehicle numbers can be lowered (as well as maintained and raised) should they not be appropriate after the first 28 days. This involves assessment against three areas; key metric trial performance, participating London Borough, TfL, Police and other relevant party feedback and lastly, operator feedback. It is hoped this will reassure pedestrians if they experience multiple incidents that it will be taken into account and possible impact numbers being reduced. (See Section 9 and 10)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. The perception of non-users and gathering insight on the impact e-scooters have on all Londoners is a key objective for the trial. TfL are working on a number of approaches that can be used to ensure the option to feedback is available to non-users throughout the duration of the trial. (See Section 14)</p> <p>Enhanced vehicle safety features: Operators will be required to meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a</p>
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		bell/horn to allow the rider to make a sound to warn others of their presence and be seen more easily. Operator's e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process (See Section 16)
Pregnancy/ Maternity	<p>4.6 Increased risk of Covid-19 to pregnant women from rental e-scooters E-scooters could contribute to the spread of Covid-19 through multiple use. The disease can be especially harmful to pregnant women who are more at risk of a serious illness to themselves or their baby</p>	<p>Cleaning of e-scooters: Operators must ensure that all e-scooters made available to rent are maintained to ensure they are safe to operate, in good working order, are adequately charged and cleaned regularly. (See Section 17)</p> <p>Maintenance regimes: Maintenance regimes must include regular and deep cleaning and disinfection of e-scooters, with additional processes in place on an ongoing basis for e-scooter touchpoints e.g. handlebars, brake levers etc to be cleaned once a day. It will be for the operators to present stringent cleaning processes and maintain these (See Section 17)</p> <p>TfL Covid-19 marketing: TfL has multiple COVID-19 marketing messages in place, including on handwashing before and after your travel. These messages will remain live on the network and should help to further encourage all to wash their hands in the fight against COVID-19.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Operators are required to give TfL regular updates on the cleaning regime they are using. (See Section 14)</p> <p>User education: Operators must make easily available within their apps at all times, comprehensive and clear training to users, including on any hygiene-related recommendations, in particular that users are recommended to wash their hands thoroughly before and after use. (See Section 20)</p>
Race	<p>5.1 BAME communities may suffer an increased risk of a collision on a rental e-scooter Falls from e-scooters are expected partly due to being a new and unknown mode of transport and not enough awareness of how to use them. BAME communities are more likely to be involved in a collision.</p>	<p>Enhanced vehicle safety features: Operators must meet the minimum DfT requirements as well as additional features as listed in the Operator Specification which include; forward and rearward lighting which is always on throughout a rental and a bell/horn to allow the rider to make a sound to warn others of their presence and be seen more easily. Operator's e-scooters must also be designed with the safety of users, including under impact, and the general public in mind, with this being assessed during the Operator selection process. (See Section 16)</p> <p>Operator education and outreach for users and non-users: Operators must conduct</p>

		<p>education for users and outreach for both users and non-users. It must be designed to have maximum reach and focus on the trial, how to safely use e-scooters such as how to ride safely and how to access customer services. This should help BAME communities becoming more familiar with an e-scooter and how to safely use it before their journey leading to safer road behaviours. Further, the Operator must ensure that all user communications and user-facing apps, websites and other materials are accessible, and that marketing and any sponsorship must comply with all legal requirements including the Equality Act 2010. (See Section 20 and 23)</p> <p>Required user training and education: Operators must make easily available within its app at all times, comprehensive and clear training to users on how to ride e-scooters safely and considerately, with training mandatory for first time riders before they can start a ride. This information must be made available in a format that maximises understanding, including for those whose first language may not be English. This should help all riders understand how to safely ride their e-scooter leading to safer road behaviours. (See Section 20)</p> <p>Required safety processes: Operators must also have various safety processes in place for users including one for first time users confirming they have understood the training information in advance of starting a ride and that promote the use of helmets. This should work towards ensuring those from BAME communities are safer on the road. (See Section 20)</p> <p>Additional safety processes: Operators should consider additional safety processes and features such as encouraging riders to wear light-coloured or fluorescent clothing. This should help other vehicles ensure riders are seen. (See Section 20)</p> <p>Maintenance regimes: The operator must ensure that all e-scooters made available to rent are maintained on an ongoing basis to ensure they are safe to operate, in good working order and are adequately charged. This should ensure that vehicles are safe to use before starting rides. (See Section 17).</p> <p>TfL rental e-scooter campaign: TfL are preparing a centralised awareness and safety campaign. Raising awareness of the scheme is expected to run approximately for the initial 10 weeks and safety messaging will run throughout the trial via a mix of channels including print (posters), digital and possibly radio. The exact messages are currently in development and will be updated in due course. It is hoped that riders benefit from being reminded about safe behaviours and it raises attention to all other road users of the presence of e-scooter riders. (See Section 23)</p> <p>TfL and London Borough community engagement: TfL and London Boroughs will be designing community engagement programmes. These are being designed but it will be important to consider reaching out to communities who could be at more risk on the e-</p>
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		<p>scooters such as those from BAME communities and working harder to deliver training and key safety messaging to them and building a culture of safe riding.</p> <p>TfL existing safety campaigns: TfL already undertakes multiple road safety campaigns, with many targeting younger drivers or soon to be drivers (Safe Drive Stay Alive). Campaigns like this, will continue to occur to motorists but, many of the messages, that are consistent in other schemes will still be relevant to those who decide to use e-scooters.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Incident and collision data will be captured throughout the trial using a range of approaches to ensure TfL get as complete a picture as possible. Operators are required to log incidents and share that information with TfL, data will also be collected in the same way as existing modes i.e. through STATS19, plus users and the public will be able to self-report incidents. This information can both be used immediately to understand the nature of the incident, but then be analysed over time to keep under review the impact on those with protected characteristics and others who are at a greater risk. It is worth noting here that the appropriate privacy and safeguarding measures will be used when capturing this data and it might not be possible to get information on protected characteristics in every case. (See Section 14)</p> <p>Events, incidents and emergencies: Operators will be required to work with Boroughs, TfL and Police when emergencies, incidents or special events occur to prioritise the safety of users and the general public. This includes for instance suspending the service during severe weather (e.g. snow) when there may be an increased likelihood of injuries (See Section 24)</p>
<p>Race</p>	<p>5.2 Increased risk of Covid-19 to BAME communities from rental e-scooters E-scooters could contribute to the spread of Covid-19 through multiple use. The disease can be especially harmful to BAME communities who are more at risk of a serious illness or death from the disease.</p>	<p>Cleaning of e-scooters: Operators must ensure that all e-scooters made available to rent are maintained to ensure they are safe to operate, in good working order, are adequately charged and cleaned regularly. (See Section 17)</p> <p>Maintenance regimes: Maintenance regimes must include regular and deep cleaning and disinfection of e-scooters, with additional processes in place on an ongoing basis for e-scooter touchpoints e.g. handlebars, brake levers etc to be cleaned once a day. It will be for the operators to present stringent cleaning processes and maintain these (See Section 17)</p> <p>TfL Covid-19 marketing: TfL has multiple COVID-19 marketing messages in place,</p>

		<p>including on handwashing before and after your travel. These messages will remain live on the network and should help to further encourage all to wash their hands in the fight against COVID-19.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Operators are required to give TfL regular updates on the cleaning regime they are using. (See Section 14)</p> <p>User education: Operators must make easily available within their apps at all times, comprehensive and clear training to users, including on any hygiene-related recommendations, in particular that Users are recommended to wash their hands thoroughly before and after use. (See Section 20)</p>
<p>Race</p>	<p>5.3 Some people from BAME communities may be disproportionality excluded from using rental e-scooters due to lower than average incomes</p>	<p>Low income plans: The operator is free to set its own pricing for its service to users. However, it should include consideration of an affordable service that competes with other transport options. Throughout the trial all operators must offer low income/equitable access customer plans to support the use of rental e-scooters by disadvantaged groups in London. Plans must be visible, and the pricing structure explained clearly to users. TfL hopes to see plans that support those with lower incomes able to access it and Operators’ low income/equitable access proposals will be taken into consideration during the operator selection process (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access.</p>

		(See Section 14)
Race	<p>5.4 Some people in BAME communities may be disproportionality excluded from using rental e-scooters if they do not speak English</p> <p>Access to a rental e-scooter scheme is likely to be via an app which if only in English could prevent many people from accessing the service.</p>	<p>Reach and language: The operator must conduct education for users and outreach for both users and non-users, as well as with community and stakeholder organisations. This should be designed to have the maximum reach, including for those who would not come into contact with the app or digital channels and those whose first language may not be English. (See Section 20)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
Race	<p>5.5 Increased fear and risk of hate crime to some BAME riders of rental e-scooters at collection and drop off locations</p> <p>BAME communities are at a higher risk of hate crime and e-scooter parking locations could be in areas that make them more at risk of this crime if they’re not chosen carefully.</p>	<p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas. As well as being in areas which are easily accessible, they should also select areas which are well lit, allow people to feel safe and ideally have CCTV to mitigate against the threat of hate crime occurring whilst starting or ending their journey. This is applicable to all groups who are at a higher risk of hate crime.</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Reporting hate crime can be encouraged through the feedback mechanisms which will be put in place, as well as directly asked for during survey work. (See Section 14)</p>
Religion	<p>6.1 Increased fear and risk of hate crime to riders of some faith groups at collection and drop off locations</p>	<p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas. As well as being in areas which are easily accessible, they should also select areas which are well lit, allow people to feel safe and ideally have</p>

	<p>Some faith groups are at a higher risk of hate crime and e-scooter parking locations could be in areas that make them more at risk of this crime if they're not chosen carefully.</p>	<p>CCTV to mitigate against the threat of hate crime occurring whilst starting or ending their journey. This is applicable to all groups who are at a higher risk of hate crime. Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Reporting hate crime can be encouraged through the feedback mechanisms which will be put in place, as well as directly asked for during survey work. (See Section 14)</p>
<p>Sexual Orientation</p>	<p>6.2 Increased fear and risk of hate crime to riders of some LGBT+ groups at collection and drop off locations LGBT+ communities are at a higher risk of hate crime and e-scooter parking locations could be in areas that make them more at risk of this crime if they're not chosen carefully.</p>	<p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas. As well as being in areas which are easily accessible, they should also select areas which are well lit, allow people to feel safe and ideally have CCTV to mitigate against the threat of hate crime occurring whilst starting or ending their journey. This is applicable to all groups who are at a higher risk of hate crime. Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. Reporting hate crime can be encouraged through the feedback mechanisms which will be put in place, as well as directly asked for during survey work. (See Section 14)</p>
<p>Sexual Orientation</p>	<p>6.3 Some people from LGBT+ communities may be disproportionality excluded from using rental e-scooters due to lower than average incomes</p>	<p>Low income plans: The operator is free to set its own pricing for its service to users. However, it should include consideration of an affordable service that competes with other transport options. Throughout the trial all operators must offer low income/equitable access customer plans to support the use of rental e-scooters by disadvantaged groups in London. Plans must be visible, and the pricing structure explained clearly to users. TfL hopes to see plans that support those with lower incomes able to access it and Operators' low income/equitable access proposals will be taken into consideration during the operator selection process (See Section 22) Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected</p>

		<p>from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
Other	<p>7.1 Disruption to the homeless if areas they sleep in are selected as parking locations for rental e-scooters</p>	<p>Borough parking guidance: London Boroughs are developing consistent parking guidance for the selection of suitable designated parking areas. As well as being in areas which are easily accessible and protect people from the risk of hate crime, they should also try to select areas which do not disturb the homeless.</p>
Other	<p>7.2 Low income groups may be disproportionality excluded from using rental e-scooters due to lower than average incomes</p>	<p>Low income plans: The operator is free to set its own pricing for its service to users. However, it should include consideration of an affordable service that competes with other transport options. Throughout the trial all operators must offer low income/equitable access customer plans to support the use of rental e-scooters by disadvantaged groups in London. Plans must be visible, and the pricing structure explained clearly to users. TfL hopes to see plans that support those with lower incomes able to access it and Operators' low income/equitable access proposals will be taken into consideration during the operator selection process (See Section 22)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL's new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
Other	<p>7.3</p>	<p>Alternatives to smartphone: Operators should consider how they can support inclusivity</p>

	<p>Low income groups, the homeless and refugees may be disproportionality excluded from using rental e-scooters due to lack of a smartphone, bank account or not speaking English.</p> <p>Access to a rental e-scooter scheme is likely to be via an app, in English and using a bank card. Those that do not own a smartphone, bank account or speak English may feel excluded</p>	<p>by providing an alternative to smartphone access, or cash or other non-bank account-based payment alternatives. These plans must be clearly listed in a variety of places so that those who are already restricted at least know about alternatives. (See Section 22)</p> <p>Ensuring a wider reach and alternative languages: The Operator must conduct education for users and outreach for both users and non-users, as well as with community and stakeholder organisations. This should be designed to have the maximum reach, including for those who would not come into contact with the app or digital channels and those whose first language may not be English. (See Section 20)</p> <p>Monitoring, data collection and evaluation: A comprehensive research programme to collect rich quantitative and qualitative data is at the heart of the trial. Data will be collected via the introduction of TfL’s new micro-mobility data platform. It is a contractual requirement that operators must regularly share a wide range of information on performance including on usage patterns and incidents and data will also be collected from participating London Boroughs, and from both users and non-users. As part of their evaluation and social research on the trials, DfT are collating data on demographics and socioeconomic characteristics of users. TfL are hoping to access this information for users in London. If TfL are not able to leverage the DfT data, provision has been made to undertake our own data gathering. The user data can then be compared to London-wide population data and understand if certain groups are underrepresented. An important learning objective of the trial (see Section 2) is to understand any inequality of access. (See Section 14)</p>
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3.2 The positive impacts the introduction of a 12-month rental e-scooter trial could have on people with protected characteristics

In addition to the benefits below it is important to highlight that by TfL taking this co-ordinated approach it is preventing a scenario which would otherwise occur. Such a scenario would involve a fragmented approach of multiple trials across London of rental e-scooters with no consistent standards. The co-ordinated approach allows TfL to set the standards that are important to the Mayor, TfL, London Councils and the London Boroughs for the benefit of all. These include:

- **Safety:** Strict safety requirements and high operating standards would be enforced as far as reasonably possible, putting safety first and ensuring that the trial is responsibly managed for the benefit of everybody in London. Safety requirements run throughout the Operator Specification **(See Appendix 1)** and will require operators to provide services that include: additional vehicle safety features beyond the DfT’s requirements; strict maintenance regimes; strategies to mitigate risky behaviours and crime and ensure vehicles are parked in designated areas only without obstructing pedestrian access; and providing customer education and training on how to ride safely and considerately. In addition to

‘no-go’ and ‘go-slow’ areas, ‘key zone’ areas will also be used to limit the number of vehicles in certain areas, to ensure local hotspots do not become inundated by vehicles. An important learning objective of the trial would be to understand the perceptions and attitudes of users and non-users, particularly older people and disabled people who have shared concerns about the potential impacts of the vehicles in public spaces.

- **Environment:** TfL would set and encourage environmental standards important to TfL and the Mayor, including Ultra-Low Emission Zone (ULEZ) compliance, minimising water and energy consumption, using renewable energies, and encouraging sustainable design, manufacture and maintenance of the e-scooters. An important learning objective of the trial will be to understand the impact of e-scooters on the demand for travel by car, walking, cycling and public transport, and the corresponding impact this has on the health of Londoners.
- **Accessibility:** Operators would be required through the administration agreement to offer low income or equitable access customer plans to reduce transport inequality. In delivering the trial, TfL would better understand any inequality in access that may need to be managed longer term. TfL would collect data to understand the impact of this vehicle type on travel behaviour in London as well as where e-scooters can enhance transport options and complement existing public transport.

The collection of data to understand any social, economic, health and environmental benefits and impacts of the trial will be fundamental to the learning objectives. This data would be used to shape the policy position for TfL, London Councils and the London Boroughs on this vehicle type, which is being used privately and illegally already on London’s streets in growing numbers, and in turn, to feed in views to help to shape national legislation relating to this new vehicle type, including informing TfL, London Councils and the London Boroughs as to any powers that London needs to promote positive outcomes for the Mayor and for TfL.

As part of this data collection, ongoing engagement with groups representing those with protected characteristics will be crucial to better understanding both the positive and negative impacts of rental e-scooter trials. The engagement will further ensure TfL keep under review and develop appropriate mitigations and actions to ensure the delivery of an inclusive rental e-scooter trial and as per the learning objectives of the trial as set out in 1.4, it will feed into the DfT ahead of any changes to relevant legislation.

Protected Characteristic	Possible positive impact based on evidence in Section 2
Age	<p>A safer and consistent approach to a trial: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised safety standards set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group due to older and younger people being more likely to be impacted by the negative safety impacts raised such as increased collisions involving an e-scooter as a rider or pedestrian. The consistent and collaborate approach is facilitating the introduction of higher safety standards to protect these groups.</p> <p>Enhanced mobility around London:</p>

	<p>As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the accessibility requirements set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group as some older people do not have access to a smart-phone and the trial requirements request alternatives to this which means older people shouldn't be excluded for this reason and have the opportunity to experience, if they wish, a new sustainable mode of transport.</p> <p>Rental e-scooters provide an opportunity to improve independent mobility for some older and younger people, by providing access to an affordable electric powered vehicle. Access through an affordable scheme provides additional opportunity for independence for instance to someone who cannot walk or cycle long distances but could use an electric powered vehicle.</p> <p>Older and younger people in London are more likely to have low incomes. An affordable rental e-scooter scheme could benefit older and younger people on low-incomes living in deprived areas with poorer links to conventional transport, by providing them access to a quick, sustainable mode to travel.</p> <p>A sustainable, clean new mode that could absorb car trips and reduce pollution: Rental e-scooters have the opportunity to encourage people to switch from car use to a rental e-scooter instead for their trip. Pollution levels are particularly dangerous to children and older people and so the benefits of improved air quality could be far greater on this group.</p> <p>A socially distanced form of travel: Rental e-scooters offer a new socially distanced form of travel. Certain groups, such as older people, are more at risk of suffering from a more dangerous version of the disease. If chosen as a transport option, rental e-scooters could help older people move around London more comfortably, or, as a result of other people using rental e-scooters it would mean public transport is less crowded for them.</p> <p>Independent travel: An independent form of travel could benefit groups who are more at risk of hate crime on the public transport network and lead to increased confidence being able to travel independently on a rental e-scooter rather than on a busy transport mode.</p> <p>Less congested transport network: A switch to rental e-scooters from conventional modes as discussed would further free up critical space for older people who need access to seats and experience congestion as a barrier to travel.</p>
Disability	<p>A safer and consistent approach to a trial: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised safety standards set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p>

This is likely to be of particular benefit to this group due to some disabled people, especially those who are blind or have visual impairments being more likely to be impacted by the negative safety impacts raised such as increased collisions with e-scooters as a pedestrian if they form street clutter. The consistent and collaborate approach is facilitating the introduction of much higher safety standards to protect these groups.

Enhanced mobility around London:

As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised accessibility requirements set as part of this process (as set out in **Appendix 1**) as opposed to a fragmented approach with varying rules and standards which is the alternative.

This is likely to be of particular benefit to this group as some disabled older people do not have access to a smart-phone and can have lower than average incomes. The trial requirements request alternatives to smartphones and low-income plans which means those affected shouldn't be excluded for this reason and have the opportunity to experience, if they wish, a new sustainable mode of transport.

Independent travel:

Rental e-scooters provide an opportunity to improve independent mobility for some disabled people, by providing access to an affordable electric powered vehicle. Access through an affordable scheme provides additional opportunity for independence for instance to someone who cannot walk or cycle long distances but could use an electric powered vehicle. Future considerations for adapting e-scooter vehicles to further improve accessibility would also benefit disabled people and a trial would provide the opportunity to investigate innovative options.

Disabled people and their families are more likely to have low incomes compared to non-disabled Londoners. An affordable rental e-scooter scheme could benefit some disabled people living in deprived areas with poorer links to conventional transport, by providing them access to a quick, sustainable mode to travel.

A sustainable, clean new mode that could absorb car trips and reduce pollution:

Rental e-scooters have the opportunity to encourage people to switch from car use to a rental e-scooter instead for their trip. Pollution levels are particularly dangerous to disabled people who may have heart and respiratory conditions and so the benefits of improved air quality could be far greater for this group.

A socially distanced form of travel:

Rental e-scooters offer a new socially distanced form of travel. Certain disability groups such as those with learning disabilities are more at risk of catching COVID-19 and then suffering from a more dangerous version of the disease due to underlying health conditions. This group of people are likely to benefit from quieter public transport if some existing passengers choose to use rental e-scooters instead and therefore make public transport less crowded for them.

A switch to rental e-scooters from conventional modes would further free up critical space for disabled people on public transport who experience congestion as a barrier to travel on public transport, especially during the COVID-19 pandemic.

<p>Pregnancy/ Maternity</p>	<p>A safer and consistent approach to a trial: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised safety standards set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group due to some pregnant women, new parents and those on maternity feeling at a higher risk of collisions with e-scooters if they form street clutter or cannot move quickly enough out of their way. The consistent and collaborate approach is facilitating the introduction of much higher safety standards to protect these groups.</p> <p>Enhanced mobility around London: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised accessibility requirements set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to pregnant women or those on maternity as they can have lower than average incomes. The trial requirements request low income plans which means those affected shouldn't be excluded for this reason and have the opportunity to experience, if they wish, a new sustainable mode of transport.</p> <p>A sustainable, clean new mode that could absorb car trips and reduce pollution: Rental e-scooters have the opportunity to encourage people to switch from car use to a rental e-scooter instead for their trip. Pollution levels are particularly dangerous to children and pregnant women and so the benefits of improved air quality could be far greater for this group.</p> <p>A socially distanced form of travel: Rental e-scooters offer a new socially distanced form of travel. Certain groups, such pregnant women are more at risk of suffering from a more dangerous version of the disease. If chosen as a transport option, rental e-scooters could help pregnant women move around London more comfortably, or, as a result of other people using rental e-scooters it would mean public transport is less crowded for them.</p> <p>Less congested transport network: A switch to rental e-scooters from conventional modes would further free up critical space for those who need it including pregnant women, with improved access to seats and young families with pushchairs.</p>
<p>Gender</p>	<p>A safer and consistent approach to a trial: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised safety standards set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group due to men being more at risk of road incidents and therefore at a higher risk of being involved in an incident involving a rental e-scooter. The consistent and collaborate approach is facilitating the introduction of much higher</p>

	<p>safety standards to protect these groups.</p> <p>Enhanced mobility around London: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised accessibility requirements set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to women as they can have lower than average incomes. The trial requirements request low income plans which means those affected shouldn't be excluded for this reason and have the opportunity to experience, if they wish, a new sustainable mode of transport.</p> <p>A socially distanced form of travel: An independent form of travel could benefit groups who are more at risk of hate crime on the public transport network and lead to increased confidence being able to travel independently on a rental e-scooter rather than on a busy transport mode. TfL know that trans-gender communities are particularly fearful of travelling on London's network due to hate crime. Access to a rental e-scooter could increase opportunities from independent travel for this group.</p>
<p>Race</p>	<p>A safer and consistent approach to a trial: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised safety standards set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group due to BAME communities being more at risk of road incidents and therefore at a higher risk of being involved in an incident involving a rental e-scooter. The consistent and collaborate approach is facilitating the introduction of much higher safety standards to protect these groups.</p> <p>Enhanced mobility around London: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised accessibility requirements set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group as some BAME communities have lower than average incomes and some in this group may not speak English. The trial requirements request low income plans and consideration of alternative languages to English which means those affected shouldn't be excluded for this reason and can experience rental e-scooters, if they wish, a new sustainable mode of transport.</p> <p>A sustainable, clean new mode that could absorb car trips and reduce pollution: Rental e-scooters could encourage people to switch from car use to a rental e-scooter instead for their trip. Pollution levels are particularly prevalent in areas of deprivation. TfL know that BAME communities are more likely to live in more deprived areas in London and so the</p>

	<p>benefits of improved air quality could be far greater for this group.</p> <p>A socially distanced form of travel: Rental e-scooters offer a new socially distanced form of travel. Certain groups, such as BAME communities and especially men, are more at risk of suffering from a more dangerous version of the disease. If chosen as a transport option, rental e-scooters could help BAME communities move around London more comfortably, or, as a result of other people using rental e-scooters it would mean public transport is less crowded for them.</p> <p>An independent form of travel could benefit groups who are more at risk of hate crime on the public transport network and lead to increased confidence being able to travel independently on a rental e-scooter rather than on a busy transport mode.</p>
<p>Religion</p>	<p>A safer and consistent approach to a trial: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised safety standards set as part of this process (as set out in Appendix 1) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group due to some faith groups being more at risk of hate crime which could be increased if unsuitable areas are selected for starting and ending journeys which makes an individual feel more at risk. The consistent and collaborate approach is facilitating the introduction of much higher safety standards to protect these groups.</p> <p>A socially distanced form of travel: An independent form of travel could benefit groups who are more at risk of hate crime on the public transport network and lead to increased confidence being able to travel independently on a rental e-scooter rather than on a busy transport mode.</p>
<p>Sexual Orientation</p>	<p>A safer and consistent approach to a trial: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised safety standards set as part of this process (as set out in Appendix 2) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to this group due to the LGBT+ community being more at risk of hate crime which could be increased if unsuitable areas are selected for starting and ending journeys which makes an individual feel more at risk. The consistent and collaborate approach is facilitating the introduction of much higher safety standards to protect these groups.</p> <p>Enhanced mobility around London: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised accessibility requirements set as part of this process (as set out in Appendix 2) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to the LGBT+ community as they can have lower than average incomes. The trial requirements request low income plans which means those affected shouldn't be excluded for this reason and can experience rental e-scooters, if they wish, a new</p>

	<p>sustainable mode of transport.</p> <p>A socially distanced form of travel: An independent form of travel could benefit groups who are more at risk of hate crime on the public transport network and lead to increased confidence being able to travel independently on a rental e-scooter rather than on a busy transport mode.</p>
Other	<p>Enhanced mobility around London: As a result of the co-ordinated approach being proposed by TfL (one rental trial of e-scooters) all Londoners and visitors who interact with rental e-scooters directly as a rider or indirectly as another road user will benefit from the raised accessibility requirements set as part of this process (as set out in Appendix 2) as opposed to a fragmented approach with varying rules and standards which is the alternative.</p> <p>This is likely to be of particular benefit to people in this group as those on low income may not be able to afford the scheme, may not have access to a smartphone or bank card or speak English. The trial requirements request low income plans, alternatives to bank card and smartphone access and consideration of alternative languages to English which means those affected shouldn't be excluded for this reason and can experience rental e-scooters, if they wish, a new sustainable mode of transport.</p>

Section 4: Consultation

Below is a summary of the consultation undertaken to inform TfL's EQIA in addition to the desk-based research that was carried out:

List the groups you intend to consult with or have consulted and reference any previous relevant consultation?	If consultation has taken place what issues were raised in relation to one or more of the protected characteristics?
<p>IDAG The Independent Advisory Group (IDAG) involves disabled people in the way TfL shapes and develops their strategy for making London more accessible to all.</p>	<p>Date: 15 July 2020 Key Outputs: The following key concerns relevant to the EQIA were raised. All points were considered in the writing of the Operator Specification as many comments contributed to the introduction of mitigations and recommendations for operators. Points were also used as evidence in the EQIA. TfL will to continue to engage with this group to keep them updated on progress and to gain further insight as the trial develops.</p> <ul style="list-style-type: none"> • Will there be a customer service/contact point? • Unique identification is needed on rental e-scooters • Lights and sounds are essential • Concerns raised about the active travel impacts • Lifespan of e-scooters and environmental impacts • Not conforming to parking rules • Lack of understanding on the psychological impact on disabled people needs to be addressed

<p>TfL Accessibility Forum (incl. Royal Assoc. for Deaf people, Epilepsy Society, Transport for All, Scope, Disability Rights UK, Alzheimer’s UK, Inclusion London, Age UK, Parkinson’s UK, Guide Dogs, London Vision and RNIB)</p>	<ul style="list-style-type: none"> • Lack of helmets is concerning given research and evidence seen to date. <p>Date: 3 July 2020 Key Outputs: The following key concerns relevant to the EQIA were raised. All points were considered in the writing of the Operator Specification as many comments contributed to the introduction of mitigations and recommendations for operators. Points were also used as evidence in the EQIA. TfL will to continue to engage with this group to keep them updated on progress and to gain further insight as the trial develops.</p> <ul style="list-style-type: none"> • Ensuring considerate parking • Prevention of use on footways (pavements) • Need for audible warnings on rental e-scooters • Speed of rental e-scooters must be appropriate • Need to build rider awareness of the potential impact of rental e-scooters on disabled/visually impaired Londoners.
<p>Guide Dogs, London Vision and RNIB</p>	<p>Date: 17 July 2020 Key Outputs: The following key concerns relevant to the EQIA were raised. All points were considered in the writing of the Operator Specification as many comments contributed to the introduction of mitigations and recommendations for operators. Points were also used as evidence in the EQIA. TfL will to continue to engage with this group to keep them updated on progress and to gain further insight as the trial develops.</p> <ul style="list-style-type: none"> • Parking needs to be clear and safe • Complaints need to be handled in the correct manner and a process established • Rider training needs to be as comprehensive as possible including where they’re allowed to be ridden. • On-going engagement is recommended and encouraged • Rental e-scooters need to be uniquely identifiable
<p>TfL Survey: Rental Electric Scooter Trials (Survey responses from: Construction Industry Council, Confederation of Passenger Transport, Age UK London, London Vision, Unibail-Rodamc, Westfield Stratford City, RoadPeace, London First, The Ramblers, Road Haulage Association Ltd, Living Streets, EY, Road Haulage Association, Paddington Central, The Portman Estate, Cabvision Network, TfL Youth Panel, United Cabbies Group, London Cabbie, Sus, strans, Future City Logistics, MCIA Ltd, LINK Limited, London City Airport, Canary Wharf Group, UKHospitality, London Chamber of</p>	<p>Date: Friday 10 July 2020 Key Principles: Sent to 140 stakeholders with 48 completing the survey Key Outputs: The following key concerns relevant to the EQIA were raised. All points were considered in the writing of the market specification as many comments contributed to the introduction of mitigations and recommendations for operators. Points were also used as evidence in the EQIA.</p> <p>Safety</p> <ul style="list-style-type: none"> • Could there be conflict with buses, cyclists and motorcyclists • Inexperienced users present a risk to themselves and other road users • The speed and silence of e-scooters present a risk to pedestrians, particularly those with accessibility needs • Scooters abandoned on pavements after use and parking facilities may cause obstructions and injuries <p>Accessibility and inclusion</p> <ul style="list-style-type: none"> • Fear that rental e-scooters could have a potential impact on isolation and activity levels for vulnerable groups

<p>Commerce and Industry, BIRA, Guide Dog London First, Wheels for Wellbeing, Orbital Equipment Ltd austin wilkinson & Sons Ltd, Baker Street Quarter Partnership, RNIB, Heathrow Airport Limited, Alliance of British Drivers, CoMoUK, London Bike Kitchen, Race Equality Foundation, The Crown Estate, British Land and Delivery</p>	<ul style="list-style-type: none"> • They could be prohibitively expensive and therefore unlikely to reduce transport inequality <p>Environment and sustainability</p> <ul style="list-style-type: none"> • Inadequate infrastructure- not enough space on streets to accommodate rental e-scooters
<p>Review of DfT consultation responses</p>	<p>Date: Closing date of the DfT consultation was 3 July 2020 Key Principles: Some organisations shared their consultation responses with TfL for wider understanding. Where relevant and possible this feedback contributed to the development of the EQIA, mitigations and consequently the Operator Specification. Some of the key outputs are below: Key Outputs:</p> <ul style="list-style-type: none"> • User training is essential (Road Haulage Association) • Lack of visibility (Road Haulage Association) • Helmet use should not be mandatory (London Cycling Campaign) • Need to restrict and manage numbers (London Cycling Campaign) • Risk in attracting users from more sustainable and active modes (CoMoUK)
<p>TfL webcast on London approach to rental e-scooters for key stakeholders</p> <p>There were a total of 93 registrations for the webcast.</p>	<p>Date: 1 December 2020 Key Principles: TfL hosted a webcast to update key stakeholders on the approach that was being taken to a London rental e-scooter trial following the launch of procurement for operators. The webcast lasted for just over an hour and focused on explaining the principles and objectives of the trial. Namely the safety-first approach with consistent standards, the focus on evidence gathering and the engagement programme.</p> <p>This proactive approach was applied to ensure stakeholders were kept up to date and at the end of the session all stakeholders were encouraged to get in touch directly if they had any other questions, but none were received at this time.</p>
<p>Email exchange with Tommy's</p>	<p>Date: 22 January 2021 Key Principles: TfL contacted Tommy's directly as TfL hadn't yet heard from them or other groups representing pregnant women to inform this EQIA. Key Outputs:</p> <ul style="list-style-type: none"> • Rental e-scooters would need to be used with care because as a woman becomes more heavily pregnant their centre of balance changes and risk of falls would increase. • If a pregnant woman falls particularly on her bump this could be dangerous; or if she falls and hurts wrists/ankles, then they could be more at risk of injury due to softened ligaments in pregnancy. • If used in crowded areas could there be an increase in accidents and pregnant women being

	<p>involved/knocked over?</p> <ul style="list-style-type: none"> • Possibly reduce the amount of exercise pregnant women get if they use a rental e-scooter rather than walk. • Rental e-scooters could possibly help those whose mobility is difficult due to pelvic pain • Clear guidance for pregnant women on when to use an e-scooter
<p>Workshop with TfL colleagues on impacts of e-scooters on pregnant women or those on maternity</p>	<p>Date: 1 February 2021 Key Principles: TfL hosted a workshop with seven colleagues who represented pregnant women, those on maternity and new parents to understand their views on the introduction of a 12-month rental e-scooter trial in London. Key Outputs:</p> <ul style="list-style-type: none"> • They were unanimously positive about the approach TfL was taking and saw this as the best way to mitigate against a fragmented approach in London and that it will help to clarify how they should be used safely. • Concerned about the pollution levels in London and the impact on children and therefore positive about a more sustainable mode that could reduce car use. • Strongly concerned about the speed of vehicles and the inability to see or hear them coming and how this could lead to incidents. • They shared experiences of near-misses with e-scooters as a result of illegal behaviours e.g. e-scooters going through red lights and felt shared use areas could become dangerous. • Fear the impact of on children from road-rage and how this may occur more frequently with e-scooters as well as the longer-term impacts on children from witnessing incidents involving e-scooters. • Stressed the unpredictability of children and how this could possibly lead to incidents especially in shared use areas. • Raised the risk of being slower due to pushing children or being heavily pregnant and reactions being slower. • Children and low down in prams and could they be more likely to be hit by an e-scooter given the design is new and something people are not used to.
<p>Equality and Inclusion workshop hosted by TfL (Those that joined represented Rolltech.uk, TfL Youth Panel and Trust for London.</p>	<p>Date: 5 February 2021 Key Principles: 35 groups were invited to join a workshop to share their views of e-scooters with TfL and some listening in London Boroughs. Only five were able to attend, representing the three organisations listed on the left. The conversation naturally focused on the importance of affordability and the youth. Key Outputs:</p> <ul style="list-style-type: none"> • Trust for London felt e-scooters could provide a great opportunity for communities to have a low-cost way of travelling without the concerns of storage (as for a personally owned bike), theft, or, having to shower at the end of their journey (as with a bike). • Trust for London did stress the importance of rental e-scooters being affordable.

	<ul style="list-style-type: none"> • The representative from the TfL Youth Panel stressed that used in the right way e-scooters could be incredibly practical in providing an alternative to crowded public transport, offer a great social element as well as a form of solo transport to avoid large crowds or group if you otherwise felt intimidated to use buses or trains where this may be the case. • Rolltech.uk were keen to stress that they viewed the safety-first approach by TfL positively and that they were pleased to hear so many things had been considered in the planning of the trial. • One representative from Rolltech.uk shared their experience and reasons for using an e-scooter over a car for their journeys. The key reasons were the efficiency of the route (removing the need for 3 buses), it was cheaper and saved him money as well as provided a genuine sense of fun. • Rolltech.uk stressed the importance of community engagement and ensuring there is a culture of safety imbedded within everyone. Not just the operators but riders too. They offered to support here with this. • All were pleased to see the opportunity in London to trial e-scooters
<p>Hate Crime Engagement Programme (Organisations engaged with include: British Transport Police, Metropolitan Police, The Mayor’s Office for Policing and Crime (MOPAC), Galop (LGBT+ and transgender anti-violence charity), Transport for All, Tell MAMA (Measuring Anti-Muslim Attacks), Shomrim (supporting victims of Anti-Simitism), London Faith Forum, Stop Hate UK and Diversity Role Models)</p>	<p>Date: Meetings with various stakeholders across December 2020 and January 2021 Key principles: TfL has been engaging with organisations that support victims of hate crime with different protected characteristics, in order to better understand the impact of hate crime on the transport network and how TfL can support victims of hate crime, both staff and customers, in their responsibility to tackle hate crim on London’s transport. Key Outputs:</p> <ul style="list-style-type: none"> • Three themes are emerging: education, raising awareness, understanding and support. • Tell Mama told TfL for Muslim women who have a part-time low-paid job, and who have been victims of hate crime on public transport, fear of returning to the network and having to use less sustainable modes such as taxis in place, leads to their giving up their jobs and independence. • Galop told TfL that the trans community avoid public transport all together for fear of being attacked. • Fear and experience of hate crime on public transport is a barrier for groups with protected characteristics to using conventional modes.

Section 5: Consultation with other projects / teams to deliver this piece of work

Included below is a table of the various regular meetings that TfL has with other teams and organisations to support the development and planning of this trial. These meetings commenced in Spring 2020.

Who	Purpose	Frequency	Responsibilities of the other group
London Councils	To manage the planning and preparations for the multi borough London trial	Weekly as well as ad-hoc	London Councils are responsible for co-ordination of the trial alongside TfL
London Boroughs	To manage the planning and preparations for the multi borough London trial	Weekly	London Boroughs are responsible for primarily responsible for parking and their local community engagement
Metropolitan Police Service	Manage the planning and preparations for the multi borough London trial	Weekly	The relevant police forces in London are responsible for the enforcement of illegal use of e-scooters
Operators	Responsible for delivering the trial	n/a	Procurement is currently live to appoint up to three operators to deliver rental e-scooter trials in London. The Operator Specification (See Appendix 1) highlights many of the responsibilities they will have such as delivery of the trial

Section 6: Informed Decision-Making

Considering the assessment, the below states how TfL intend to proceed:

<p>1. Change the work to mitigate against potential negative impacts found</p>	<p>As a result of completing this EQIA, many impacts were highlighted across the protected characteristics and strengthened the importance of TfL taking an active role via the co-ordination of a London trial alongside London Councils and the London Boroughs. There are positive impacts as a result of this scheme on protected characteristics but there are also potentially negatives.</p> <p>Given the context in which rental e-scooter trials presented themselves in the UK, it's important TfL plays its part in ensuring e-scooters can be as safe and integrated as they can be, form a view on how they might affect city goals and considers what powers may be needed to ensure long term adherence to standards important to London. Due to operator and London Borough appetite to trial e-scooters, trials were going to happen anyway. Without a coordinated approach TfL can only anticipate the same fragmented and patchy approach to customer experience and parking experienced with dockless bikes. TfL therefore strongly recommends a proactive approach, to contract, project management and evaluation of rental e-scooter services in collaboration with London Councils and the London Boroughs. By TfL leading this activity, TfL can:</p> <ul style="list-style-type: none"> • Promote safety at its core, setting strict minimum standards and requesting high quality proposals for the safety of the vehicle design, maintenance, parking as well as customer education and training. • Achieve a consistent approach across London, avoiding the experience of dockless bikes, which created a fragmented and patchy approach; • Provide the data to understand how e-scooter rental vehicles might benefit or impact TfL's achievement of city goals, as well as informing DfT's legislation of this new vehicle type; • Provide TfL with the platform to request any city-wide powers possible needed longer term to manage the outcomes of these vehicles (and which could include a potential revenue stream); and • Provide a transport alternative for COVID recovery (and further lockdowns), to car travel and capacity restricted public transport. <p>TfL have been working with London Councils and the London Boroughs since June 2020 on the details of how a coordinated trial would work in London and developed detailed proposals together. The research and engagement set out in this document was undertaken in parallel with the writing of the Operator Specification and it has meant TfL have been able to fold learnings and mitigations to possible negative impacts directly into the design of the London rental e-scooter trial. Many examples are listed above in the mitigations, but one in particular is that as a result of speaking to charities representing the blind a requirement for operators was included that "operators...must deploy solutions that drive good user behaviour. Systems must include education, including elements of disability awareness so that riders understand the possible implications of their actions, and could also include penalties and incentives." Additionally, feedback received directly informed the introduction of "no-go" and "go slow" areas to reduce or prevent rental e-scooter</p>
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use.

Most of the impacts raised have mitigations against them to reduce their likelihood. These will either be in the form of recommendations for a solution that operators should have in place, or a request that operators specifically set out how they could prevent something happening. Operators will be selected based upon their ability to fulfil these requirements and their proposals to meet our high-quality standards which means in addition to the mitigations listed already there will likely be more depending on the final operators selected.

Monitoring, data collection and evaluation

Although TfL have collected and reviewed considerable evidence, there is still a lot TfL do not know about e-scooters including impacts related to safety, mode shift and behaviour change, revenue abstraction, air quality and accessibility.

TfL have developed a comprehensive monitoring, data collection and evaluation plan for the rental e-scooter trial, to help inform the six learning objectives set out in Section 2. This plan comprises critical data TfL need from operators which is outlined in the detailed Operator Specification (See **Appendix 1**), which includes the near-real time collection of rental e-scooter location and utilisation data, as well as the regular collation of other data including incident, demographic and safety and training related data. Data will also be collected from the boroughs, from users of the trial and non-users also. TfL are also collaborating with the DfT on their evaluation work to ensure learnings are shared and that a consistent approach can be adopted where appropriate. All of this should mean a wide range of impacts (on users and non-users of rental e-scooters) are assessed throughout the trial, including their safety, potential mode shift implications and regulations for their use in London. A micro-mobility data platform separately procured by TfL will enable two way sharing between TfL and the operators and the main means through which TfL will collect this critical evaluation data. An evaluation and monitoring working group will also be part of the governance structure put in place to support the trials. The key purpose of this monitoring is to evaluate the trial against the six objectives set out earlier in this document.

As part on this on-going monitoring, data collection and evaluation TfL will continue to engage with groups representing people with protected characteristics during the trial to understand how the trial is impacting their lives and how to better take their needs into account. TfL are actively considering a regular stakeholder forum, where stakeholders are brought together to share their views. This would only not happen if it was determined that one to one engagement would prove more useful in hearing stakeholder views. Furthermore, TfL will monitor against the risk assessment as well as the EQIA.

The evidence TfL gathers throughout the trial will inform TfL's future policy on e-scooters and input to the DfT national evaluation of rental e-scooter trials which will inform national legislation. It is through this trial that TfL intends to build the evidence and determine the best outcomes for London.

Appendix 1: Operator Specification

See attached document for the operator specification which appointed operators will be required to fulfil.

Appendix 2: Map of London Borough e-scooter involvement

See attached document for the current day one London Boroughs, however, the position each take is flexible and can be changed.